

# **What Primary Teachers Need to Know About School Based Evaluation**



**Department of Educational Measurement and Evaluation**  
**National Council of Educational Research and Training**  
**Sri Aurobindo Marg, New Delhi 110016**



**What Primary Teachers Need to Know  
About  
School Based Evaluation**  
*(Towards a Practical Orientation)*



**Department of Educational Measurement and Evaluation**  
**National Council of Educational Research and Training**  
Sri Aurobindo Marg, New Delhi 110016



## *Contributors*

NIE

Sarla Rajput  
Santosh Kumar  
Ranjana Arora

**RIE, Ajmer**

S C Jam  
Rekha Johnson

**RIE, Mysore**

S P Kulkarni  
Kappanna H Y

**RIE Bhopal**

U Lakshminarayana  
Kusum Saxena

**RIE, Bhubaneswar**

B.N Panda  
P C Das  
B. Sahoo

## *Preface*

Primary education in the country has been a matter of concern from different angles since independence. Initially the focus of the education policy was on access and expansion which continued till eighties. Subsequently the National Policy of Education (NPE) 1986 emphasised on quality of education as till then it was realised that expansion did not yield qualitative result. Even recommendation of non-detention policy could not help the desirable level of attainment of primary children rather it became responsible for lowering down the standard. The analysis of the reasons for the failure of quality revealed that evaluation procedures were also responsible for this state of affair. Therefore Continuous and Comprehensive Evaluation (CCE) has been recommended by NPE as one of the major steps under its section of examination reforms.

In view of this backdrop as a implementation strategy of recommendation of NPE for introducing CCE in primary schools the efforts were made by the Department of Educational Measurement and Evaluation to develop a scheme for school based evaluation and try out in selected schools. On the basis of the findings of the try out the scheme was modified. Subsequently a handbook is prepared to provide practical orientation to teachers in order to strengthen the evaluation procedures in school. This handbook is an effort to address the difficulties faced by the practicing teachers.

This is to express my sincere gratitude to the Director Prof. J.S. Rajput and Joint Director, Prof. M.S. Khaparde in taking keen interest and providing academic support to the study of School Based Evaluation. The present handbook is the fall out of that study and is developed to meet the need of school based evaluation.

The draft of the handbook was vetted by experts Prof. A.B.L. Srivastava, Prof. S. Karandikar, Prof. A. Grewal and Dr. H.P. Rajguru who provided their academic input in its finalisation. My heart felt thanks are due to them. I am extremely thankful to Madam Gurumurthy, Assistant Commissioner, Kendriya Vidyalaya Sangathan along with Mrs Manju Vaid and Mrs. Karuna Sharma the two senior Head mistresses of Kendriya Vidyalayas for their presence and contribution.

I appreciate the untiring and diligent endeavour made by my colleagues at NIE Dr Santosh Kumar and Dr. Ranjana Arora in making the handbook worthwhile and Dr. A.D. Tiwari who provided academic input from time to time. The RIE team contributed immensely in its preparation. They deserve special thanks.

I may be failing in my duty if I do not thank to administrative staff for their secretarial support in completing the task.

Sarla Rajput  
Professor & Head

March, 2004, New Delhi

## *About the Handbook*

This handbook is the outcome of well thought strategy of reaching to the practicing teachers working in primary schools. This is prepared with a view to strengthen the evaluation practices in schools to further improve learning attainment of children. Evaluation procedures play equally significant role as the teaching learning process does in augmenting the learning. There is a general feeling that something is wrong with teaching and evaluation at primary level. In order to authenticate this fact a study titled "Evaluation Practices in Primary School of Delhi (1995)" was carried out by the Department of Educational Measurement and Evaluation to find out the status of evaluation practices in schools of Delhi. This study revealed that teachers were deficient in understanding of the concept and objectives of evaluation and its role in promotion of learning. They were not using assessment continuously only frequent testing was being done through unit tests. The co-scholastic area was mostly neglected in view of its development and evaluation. Besides, they were not aware of the new approach of evaluation.

Keeping in view the findings of this study and one of the recommendations of National Policy on Education 1986 another study was planned for school based evaluation based on the concept of continuous and comprehensive evaluation as a feasibility study in the year 2000. Here it is pertinent to explain the term school based evaluation. The term school based evaluation means that it is conducted in schools as internal evaluation in all classes except at Class X and XII where Board as external agency conducts the examination. Every school evolves its own strategies with regard to teaching learning and evaluation in the light of guidelines provided by educational administration of the State. However, every school has its own distinct procedure. Under this study first of all a scheme of school based evaluation was chalked out covering both the aspects of continuous and comprehensive evaluation. There were several apprehensions in the minds of people that the scheme of school based evaluation will be very time consuming and adding to teacher's workload. Therefore teachers will not accept the scheme. In order to ascertain this fact against these apprehensions the scheme was implemented in four Demonstration Multipurpose Schools attached to each RIE-Bhopal, Mysore, Bhubaneswar and Ajmer for one full session.

The findings of the study were quite encouraging. But some important issues emerged such as, the teachers are deficient in scholastic areas as far as preparing different questions are concerned, therefore they were unable to test all the abilities. The concept of diagnosis and remediation was completely missing. As far as co-scholastic area was concerned it was almost negligible. Hence the need of this handbook became paramount in the minds of researchers. It was a felt need that the teachers should be provided material related to evaluation procedures so that they could fill up the gaps. This is not at all to degrade their work of evaluation in school based evaluation but just to boost it to improve the procedures and do capacity building. Therefore genesis of this handbook lies in the perception of researchers regarding the inadequacies of teachers as evaluators. We are happy to bring out this handbook to cater the need of teachers.

Now let us see what this handbook contains?

The very first chapter of the Handbook presents the scheme with its genesis and its components. This also includes the strategies for its implementation and roles and functions of different functionaries.

The second chapter is devoted to the concept, purpose and kinds of evaluation highlighting the concept of CCE and non-detention.

As far as the chapter three is concerned it deals with tools and techniques to be used in evaluating scholastic aspects of student's growth.

The next chapter highlights development and evaluation of the components covering co-scholastic areas included in the subject namely Art of Healthy and Productive Living.

The last but very significant chapter titled diagnosis and remedial instruction discusses the importance of diagnosis, procedure of diagnosing learning difficulties of primary children particularly in basic competencies in scholastic and co-scholastic areas. It is followed by procedure of remediation in both the areas supported by examples.

To use this handbook a number of steps may be taken. The first step will be to read the scheme given in first chapter carefully and try to follow the guidelines given there. The second step would be to clear the doubts if any either by discussion with your colleagues or writing us. Next step would be going through the other chapters and try to find out what you are already doing and what more is required to add in your evaluation practices.

Again you have to think what you are doing is it sufficient or some improvement is needed? What you are not doing can it be introduced without much disturbance in existing system. Do you think that new practices will be for the benefit of students? If the answer is positive you have to introduce the changes and observe your students with a feeling that you stepped forward to bring the quality in education system. If it is negative then discuss with your headmaster. This is not enough if you want to change you have to lead the change. You may not delimit the change to yourself only you may tell others, your colleagues, parents and student's about the changes and their benefits. The material developed by you for testing purposes may be shared with other schools. Besides, you have to make appeal to other school teachers also to join hands with you for implementing school based evaluation.

- The next important step would be to have faith in yourself and in your competence. This scheme reposes faith in teacher.
- Using this handbook as a reference material and develop innovative practices taking clue from it would be a proactive step in strengthening evaluation procedures in your school.
- The details provided in scheme are simply suggestive. If you do it in this way as a professional you will be a different person.



## *Contents*

*Foreword*

*Preface*

*About the Book*

Chapter – I: Scheme and Its Implementation Strategy	1
Chapter – II: Concept of Evaluation	28
Chapter-III Evaluation in Scholastic Areas	34
Chapter IV Evaluation in Co-scholastic Areas	52
Chapter V: Diagnostic Tests and Remediation	69



## Chapter I

### *Scheme and its Implementation Strategy*

Over the years, educationists and other concerned persons felt the need of overhauling of the educational system in general and evaluation system in particular. This concern was also reflected in National Policy on Education (NPE) 1986 and Programme of Action (POA) 1992 when the nation focussed on quality of education. One of the recommendations of policy was the introduction of Continuous and Comprehensive Evaluation (CCE) in schools. Further, it was included in National Curriculum Framework for School Education (NCFSE) 2000 as School Based Evaluation which has its roots in the concept of CCE.

In view of the above, the Department of Educational Measurement and Evaluation, NCERT, has developed a School Based Evaluation Scheme (SBES) for primary classes. This scheme was tried out in four D.M. Schools attached to four Regional Institutes of Education (RIEs) the constituent units of NCERT. The basic aim of this scheme was to use evaluation as a tool for the quality improvement in primary education.

On the basis of experiences gained through its implementation a modified and feasible scheme is suggested as under.

#### **About the Scheme**

Under this scheme primary classes are divided in three groups keeping in mind the development of children at this stage. Besides at primary stage some states have classes I to IV only, whereas in some states class V is also the part of primary stage. It may be pertinent to point out that where the primary stage is up to class IV only two groups may be made. The grouping of the classes is as under:

Classes I and II

Classes III and IV

Classes V

The NCFSE has suggested our curricular areas namely: Language, Mathematics, Art of Health and a productive living (AHPL) for classes I and II. Besides these curricular areas Environmental Studies (EVS) has also been included for classes III-V. It has equally emphasised on the development of co-scholastic areas comprising personal qualities, attitudes, interests and values.

#### **Scholastic Area**

AHPL, a newly conceived subject deals in integrated way the components like art education, work education and health and physical education on one hand and personal and social qualities (PSQ) interests, attitudes and values on the other.

## Common Guidelines for all Classes

1. Teaching and Evaluation will continue to be competency based
2. After teaching each competency, the hard spots in learning will be identified by the teacher.
3. Remediation will be organised to remove learning difficulties and a retest will be given to them.
4. Multiple techniques (oral, written tests, observation etc.) will be used for evaluating student's performance
5. For developing the term test design, question paper and marking scheme will be prepared. For all remaining competency based tests only question paper and marking scheme will be developed.
6. Tests will be conducted as per the school schedule
7. Test results will be interpreted and necessary action will be taken.
8. Some of the questions which are attempted wrongly by most of the students are to be discussed in the class as a whole.
9. Individual student's query can be taken for discussion by the teacher.
10. The teacher will also take help of brilliant students in assisting the low achievers in the subject through peer group learning mode at this stage. However, the teacher will have to be careful in making the groups of bright and low achievers. The formation of groups will depend on the performance of students in competencies of different subject areas.
11. Record of student performance will be maintained regularly to know the progress of the child.
12. For reporting absolute grades will be used, equal weightage will be given to all the competency based tests and unit test/term test. For students who have undergone remediation the second test will be counted for awarding of grades and reporting.
13. Absolute grading means conversion of range of marks into letter grades. To implement this process the first step will be evaluating the responses of the students and allotting marks. This will be followed by converting these marks into range of marks and then each range into letter grades. Absolute grading on five-point scale will be used for reporting as given below:

Range of Marks	Grade	Description	Improvement Needed
80% and Above	A	Excellent	
65% - 79%	B	Very Good	
50% - 64%	C	Good	
35% - 49%	D	Average	
Below 35%	E	Below Average	

- 14 Grades awarded to the students will be reported in the report card and will be communicated to parents
- 15 Cooperation of the parents may also be solicited in practicing different components of learning.

Class wise specific guidelines for scholastic areas are given below

#### **Classes I and II**

1. Evaluation will be done simultaneously with teaching so that students are stress free.
2. Teacher will pay attention to individual student's progress because the students of this stage tend to forget the content points quickly due to lack of maturity. Therefore emphasis should be given on more practice particularly in language and mathematics.
3. Major emphasis will be on observation and oral testing. The proportion of oral and written test will be 80% to 20%. Students will be evaluated on the basis of their participation in the activities.
4. Activities method will be used for teaching and evaluation.
5. Form of questions, such as fill in the blanks, matching and true false may be used in written tests.

#### **Classes III & IV**

1. Oral testing and observation will continue. However, written testing will be increased gradually. The proportion of oral and written test will be 50%, 50%.
2. Forms of questions such as very short answer, fill in the blanks, true and false and matching type, will be used in testing.
3. Evaluation will be continuous besides being periodical through unit tests/term tests.
4. Homework/assignment done by the students will also be assessed.
5. Academic excellence of students displayed in good hand writing, meaningful expression, quick number recapitulation, will be taken into account by the teacher for promoting these qualities.

#### **Class V**

1. Both written and oral techniques will be used for testing. The proportion of oral and written test will be 20% to 80%.
2. Questions prepared for testing will also include higher level of reasoning and problem solving.
3. Forms of questions will include short answer, long answer, multiple-choice questions besides other forms used in earlier classes.
4. Individual student's query can be taken up for discussion by the teacher.

## Co-scholastic Area

Co-scholastic area deals with mainly emotional and psychomotor aspects of child growth. It includes co-curricular and personal and social qualities, attitudes, interest and values. As mentioned earlier co-curricular areas consist of art education, work education, health and physical education along with PSQ interests, attitudes and values now to be covered under AHPL. However, to facilitate the teacher these are specified separately.

Co-curricular Areas	Activities
Art Education	– Dance, drama, music, drawing etc
Work Education (Craft)	– Cutting, pasting, threading, painting, clay-modelling, buttoning clothes, paper craft etc.
Health and Physical Education	– Health habits like brushing teeth, taking regular bath, combing hair, washing hands before and after meals etc. – Sports, games, athletics, yoga, drill etc – Check up by a doctor once/twice in a year

In order to make development and evaluation of co-curricular areas more systematic various activities will be organised. While organising co-curricular activities the teacher will ensure following:

### Common Guidelines for all classes

1. All children must participate in atleast one activity from each area of co-curricular activities organised by the school.
2. The performance of the children will be observed, recorded on the criteria decided during participation.
3. Physical exercises, (mass P.T) will be compulsory for all students. But for physically challenged students simple exercises will be organised.
4. Observations and recordings in co-curricular areas will be done activity wise.
5. Extraordinary performance of the students will be recorded in anecdotal records.
6. Equal weightage should be given to both process and product. Process evaluation means the participation of students in the activity from the beginning to end. This will be observed and graded directly. On the other hand the product evaluation covers the evaluation of the outcome of the activity in the form of a prepared material or demonstration of activity.
7. The observations will be recorded, rated and graded on a three-point scale for each activity separately. However, performance of the students in these areas will be reported to the parents at the end of the term as under:

Percentage of Observation	Grade	Description
70% and above	A	Almost always
30% - 69%	B	Sometimes
Below 30%	C	Rarely

## Class wise specific Guidelines

### Class I and II

- 1 Activities identified for these classes will be common to all children. These activities may be identified keeping in view physical and mental growth of children.
- 2 Since the children are participating in the activities for the first time in class I the teacher is to give more input and help in doing activity.
- 3 More emphasis should be on process rather than product.

### Classes III, IV and V

Under scholastic areas these classes were kept under two groups i.e. Classes III and IV and class V. but here these are grouped together in only one group because there is not much perceptible difference in physical and emotional growth of children in these classes. However, following points may be noted with regard to evaluation

- 1 Children will be engaged in one or two activities of their choice in art education, work education and health and physical education and they will be evaluated on these activities only.
- 2 Evaluation will be based on teacher's observation of the child's participation and performance in the activities.

## Art Education

Art includes drawing, painting, dance, drama, vocal and instrumental music. These can be classified into two groups visual and performing arts. Under visual arts drawing and painting may be included and remaining will fall under the category of performing art. The class wise identification of activities may be given as under:

### Visual Art

#### Classes I and II

- 1 Simple lines
- 2 The figures based on lines i.e. simple pictures of birds and animals.
3. Identification of colours and their suitable use in things available in natural local setting i.e. fruits, flowers, vegetables, animals, plants, houses etc

#### Classes III, IV and V

- 1 Understanding of concepts
- 2 More emphasis on proportion in size drawing the figures.
3. Use of multi-colour in a picture
4. Preparation of collage.
- 5 Clay modelling.
6. Free hand drawing
7. Imaginative drawing.
- 8 Decoration

## **Performing Art**

Performing art includes solo and group activities related to music, dance, drama and imitation. Activities under music can be classified under vocal and instrumental. Vocal can further be grouped into lyrical activities and rhythmic activities.

### **Lyrical activities**

The activities under lyrical may include poetry recitation, singing of prayer, folk song and patriotic song as solo as well as group activity.

#### **Classes I & II**

- 1 Simple poetry recitation with simple action
- 2 Singing of prayer.
- 3 Singing of national anthem.
- 4 Community singing
- 5 From this stage only the students should be encouraged to participate and perform in the presence of mass. They should be counselled to be free from stage phobia

#### **Classes III, IV and V**

- 1 Folk songs solo or group may be introduced along with poetry recitation.
2. Prayer
3. National anthem
4. Simple patriotic songs.
5. Community singing
- 6 Patriotic songs of higher level with action and emotive expression

### **Rhythmic Activities**

As far as these activities are concerned these may be organised in group for the whole class or school. The activities which are based on rhythm just as drill or mass P.T. with music, physical and yoga exercises and some indoor games like musical chair and passing the buck etc. The teacher may select the activities for different classes or the whole school according to the complexity of the activity and maturity of the children in a group

### **Instrumental Music.**

The development and assessment of competencies among children in instrumental music will depend upon the availability of the instruments in the school. Students will be encouraged to develop competence of playing on the instrument. If the facility is not available in a school cooperation may be sought from community

### **Dance/Drama**

Activities related to dance and Drama under performing art may be taken by the teacher keeping in view the complexity of the activity. The approach should be simple to complex matching with the maturity of the students. Solo and group dance may be



organised to develop competence in the students after identifying talent and interest in them. However, the effort should be made to provide opportunity to all students in one or other group dance. Class wise suggestions are given below.

Class wise Activities

## **Dance**

### **Classes I and II**

- Simple rhythmic movement

### **Classes III, IV and V**

- Rhythmic movement with fast pace along with expression

## **Drama**

### **Classes I & II**

- Participation in drama with simple actions and delivery of dialogues of one or two sentences.

### **Classes III, IV & V**

- Dialogue delivery of 3-4 sentences with proper intonation/modulation and suitable gesture.
- Proper presentation of the role with emotive expression.
- Effective dialogue delivery

## **Work Education**

The purpose of introducing work education at primary level is to provide first hand experiences to students in doing day to day useful activities. The objective of this learning experience is to develop in students, a sense of dignity of labour and producing socially useful things. Besides this, the attempt should be made to remove the feeling of shyness of doing one's own work to make them more self sufficient. They should not look down the manual work as a work of low status. There should not be genderwise division of activities either at home or out side.

Activities should always be cost effective and useful in life and the material used for the activity should be from the local resource. Children should enjoy participating in activities.

Class wise Activities

### **Classes I & II**

1. Pasting of papers on already prepared structure.

### **Classes III, IV and V**

2. Putting thread in needle.
3. Stitching of buttons

- 4 Prepare structure and pasting of papers.
- 5 Cutting of papers for making flowers.
- 6 Repairing of clothes
- 7 Preparation of decorative pieces
8. Preparation of food items

## Physical and Health Education

The activities pertaining to health and physical education should be planned, organised and integrated into the totality of the school programme as far as possible. The child-centred approach also emphasises to respect the child and lays stress more on the process than the product of primary stage. In primary schools, physical education must be the central theme round which other activities should be built up. Correct postures must be taken care since class I. Play must be set in the most informal atmosphere and should be attractive to children. Large number of activities can be organised as 'no-cost' activities out of available environmental and community resources class wise.

Class wise activities

### Class I and II

#### Free Movement

*Walking:* Walk forward, walk halt walk, walk with an object on head, walk backwards, walk backward halt. Walk in a line. Walk in a circle. Walk on the line. Walk Zig-Zag, Walk fast.

*Jumping:* Jump on land on the spot with both the feet. Jump on forward. Jump on land sideways. Jump on land backwards.

*Imitation Mimicry:* Monkey crawl, Horse gallop, Bell singing, Bird fly, Train run,

*Frog jump:* Tea vendor, Train engine sound, Cat mew, Dog bark, donkey bray, Lion roar.

*Minor game:* Finding partner, Find out the leader, Fire on the mountain forming statues.

### Classes III to V

In addition to the activities of classes I and II the following activities may be organised.

*Free Movements:* Stand in attention, stand at ease, and stand at easy position. Count the number. Forward march

*Minor Games.* Dog and the bone. Dodge ball

*Free Movement* Mass P.T.

*Team games* Kho Kho, kicking and dribbling ball.

**For class V the following activities may be added**

*Free movement* Run in different directions. Jump in different directions warming up exercises such as rotation of neck, shoulders, hands, wrists, trunk and ankles.

*Team games.* Kabaddi, Football, Cricket etc

### **Instructional Time**

The teacher has to be aware of the fact that how much time is allotted in school time table for AHPL. The activities under this subject will be organised according to the time table

### **Personal Social Qualities attitudes, interests and values.**

Personal social qualities, interests and attitudes belonging to co-scholastic areas relate to emotional and skill development. It may be noted that at this stage attitude, values and interests need not be evaluated through specific tools. Simple observations may be made and the teacher will try to develop positive attitudes and values. Common guidelines for developing and assessing personal social qualities given below.

#### **Common Guidelines:**

- 1 The direction of the development rather than its status will be observed.
- 2 In case of undesirable behaviour of the students it will neither be highlighted nor be reinforced by way of scolding them.
- 3 The decision with regard to the evidence of any personality trait will be taken tentatively
- 4 Personal social qualities will be observed and recorded using behaviour indicators daily/twice/thrice/weekly/fortnightly as per the schedule of the individual school.
- 5 The students behaviour will be rated on the basis of frequency of the occurrence of the behaviour indicators on periodic basis.
6. Direct grading on three - point scale will be used for reporting purposes.
- 7 For primary level, ten social personal qualities have been identified for development and evaluation purposes. There are:

S.No.	SPQ	Observation	Recording	Reporting
1	Cleanliness	Regular	Twice a week	Unit/term test
2	Obedience Discipline			
3	Cooperation			
4.	Regularity/Punctuality			
5.	Respect for elders			
6.	Protecting Environment	Situational	As & when observed	
7	Dignity of labour			
8	Truthfulness			
9.	Patriotism			
10.	Responsibility			

Further, for classes I and II only first seven qualities are to be developed and evaluated. Whereas for classes III-V all the ten personal social qualities are to be developed and evaluated. The list along with behaviour indicators is attached at the end of the chapter

Class wise specific guidelines for above areas are given as under:

### **Specific Guidelines**

#### **Classes I and II**

##### **1. Personal Social Qualities:**

The teacher will observe the behaviour concerned with each of the qualities in the light of indicators identified before hand. This list of social personal qualities and their behaviour indicators are suggestive. Teachers may observe other related relevant behaviours also

##### **2. Interests**

Interest of children will be identified, promoted in the school programmes through co-curricular activities.

##### **3. Attitude**

Efforts may be made to develop positive attitude towards elders, peer group, school property and own property. Teacher will observe both positive and negative attitudes. Corrective measures will be taken to modify negative attitude.

#### **Classes III, IV and V.**

##### **1. Personal Social Qualities:**

The personal social qualities (1 to 7) suggested at Class I and II will continue at these classes also. However in Co-operation – sharing to be increased, the aggression should be controlled (emotional stability)

---

For Class V under cleanliness and protecting environment following additions may be made;

- |                        |                                 |
|------------------------|---------------------------------|
| Cleanliness            | - personal cleanliness          |
|                        | - keeping surroundings clean    |
| Protecting Environment | - Watering plants               |
|                        | - protecting flowers and plants |
|                        | - not hurting the animals       |

In addition to these six social personal qualities, the following three more personal social qualities may be added such as truthfulness, patriotism and responsibility

##### **2. Interests**

The interests and talent of students in games etc, will be recognised and facilitated in schools.

---

Interest in elocution – public speaking may also be encouraged.

### 3. **Attitude:** In class V

The teacher will encourage a healthy competitive spirit in students

#### **Specific Evaluation Techniques for Class V**

The following evaluation techniques are also advocated to evaluate class V students only. These are as under:

#### **Assignment/Project**

Students' performance in both scholastic and co-scholastic areas may be assessed through individual work as well as group work. Regarding the individual work we have already discussed. The purpose of giving assignment/project is to develop the ability of learning to learn in children. This may also promote personal social qualities such as cooperation, sharing and dignity of labour. Assessment through group work may be carried out. Students of class V may be given assignment/project work in different curricular areas in a group of 4-5 students. For this, the following steps are suggested as under:

- Step I:        Make groups of 4-5 students in a class. In each group, students of different abilities should be involved.
- Step II:        Identify requisite number of topics/areas in school subject as per number of groups made in class. The topic may be related to a specific subject or it may be of covering more subjects.
- Step III:        Chalk out outline for each topic and a list of sources where the relevant materials are to be collected.
- Step IV:        Distribute selected topics among the groups preferably as per choice of the group.
- Step V:        Assign work to each member of a group as per outline for the topic.
- Step VI:        Discuss the topic along with the procedure i.e. what and how they have to complete the assignment/project.
- Step VII:        Get feedback regarding the progress of the work time to time.
- Step VIII:        Resolve the difficulties of the groups (if any) when they are working at the project. All the group members to explain about the project in the class.
- Step IX:        Collect the assignment/project completed by different groups.
- Step X:        Evaluate the project in terms of following criteria:
  - Presentation of information with reference to outline provided
  - Neatness
  - Creativity
  - Role of individual member in completion of the assignment
  - The work of a group with reference to other groups.

- Step XI      Awarding of grade
- Award scores on project/assignment
  - Convert scores into grade
  - Award the same grade to all members of a group.
- Step XII:      Diagnosis and Remediation
- Provide feedback to students about their work
  - Discuss with a group whom assignment/project was below average and suggested that type of improvements are needed. Ask them to improve the assignment as per suggestions.

**Note**      The projects/assignments must be level of the class and these should be completed by the students only. So, the help of parents and others may be taken as guidance. The material required for finishing the task must be easily available, cost free or of very little cost. Hence, project should not increase the stress and financial burden on students and parents.

The guidelines provided above are suggestive in nature. Teachers may include some more as per the nature of the work. Teacher's involvement in each project is essential because, students are not mature enough and parents may not be educated well, if educated well even though they may not have much time to devote with their wards. The number of project/assignment should be one or two in a term. Therefore, if more than one teacher is teaching a class the project/assignment should be assigned on topics related to more than one curricular area in scholastic or co-scholastic areas.

### **Self Evaluation**

Children of Class V will be given a proforma to fill in for the purposes of their self evaluation towards the end of the session. This filled in proforma will be analysed by the teacher to get the feedback about the students. Inputs may be provided to the students as per their requirement. The sample of the proformas is annexed at the end of the chapter.

### **Peer Evaluation**

The peer evaluation technique will also be included for this class. Each child will be provided a list of all students in his/her class and will be asked to write in one or two sentences, one or two good qualities in front of the name of the student. At the end, the teacher will compile the observations made by all the students of the class about each child. This will be attached with the report card of the students. The example of sheet for peer evaluation is given at the end of the chapter.

### **Anecdotal Record**

Specific events related to each student throughout the year may be recorded in anecdotal record. This has two parts. The first part includes narration of the situation by the teacher along with date, time and bio-data of the student. The second part describes details of happening, reaction of the teacher and measures taken by him/her. Positive remarks may be given in the report card on the basis of the analysis of anecdotal record. Negative remark may not be given under any circumstance. The format of anecdotal record is attached at the end of the Chapter.

Various aspects of the SBES discussed above have been summarised in the following table:

### School Based Evaluation Scheme (SBES) at a Glance

#### Evaluation of Scholastic Areas

Area	Technique	Tool	Periodicity	Recording	Reporting
All the school subjects	- Oral test - Written test/ Observation	Oral questions Class work Question paper Unit test Diagnostic test Assignments Project work	- Competency test - Unit test - Terminal test	After scoring the responses in each test record of marks will be maintained	Absolute grades

#### Evaluation of Co-Scholastic Areas

Areas	Technique	Tool	Periodicity	Recording	Reporting
Health growth	Medical check up	Norms of fitness used by doctor	At least once in a year	The doctor will fill up the health card	Health status
Physical Education	Observation during participation in activities	Observation Schedule	As per schools Calender	During activities	Direct grading
Work Education Art Education	Observation	Observation while at work	As per school time table	During activities	Direct grading
Social Personal qualities Cleanliness Obedience Discipline Co-operation Regularity Punctuality Protecting Environment Dignity of Labour	Observation  Interview	Observation schedule	Weekly, fortnightly & monthly day-to-day observation by the teachers	At the time of observation	Direct grading (Once in every term)
Truthfulness Patriotism Responsibility			Situational		
Interests (Literary, Scientific, Music, Dance, Painting, Sport/Games)	Observation	Observation Schedule Self evaluation Peer evaluation Anecdotal record	Day-to-day Observation by the teacher  Organization of activities and observation	At the time of observation	Direct grading

Areas	Technique	Tool	Periodicity	Recording	Reporting
Attitudes (both positive and negative attitudes)	Observation	Observation schedule self evaluation peer evaluation anecdotal records	Day to day observation	At the time of observation	Positive only

If an organization is interested in developing a new scheme some important aspects must be taken into account. The evaluation scheme should be as simple as possible that is it should not be very ambitious. However, some basic components must be kept as compulsory. For instance continuity of evaluation, covering of both scholastic as well as AHPL (Co-scholastic areas) and systematic recording of the students' performance and regular reporting to the parents. Regarding personal social qualities which are the part of co-scholastic areas these must be developed and evaluated by paying special attention.

Till now the conceptual aspects of the school based evaluation has been discussed. If it is to be fielded and institutionalised it is necessary that systematic strategies are followed for its implementation.

### **Implementation Strategy**

People in general do not accept change so easily because it disturbs their routine and habits which have already been developed. It is essential that the people who are associated with bringing about changes to adopt to the new system, must be explained properly and motivated to bring changes in work culture of the prevailing system. For this a systematic strategy need to be developed which may involve different steps to be taken before launching the scheme and during its implementation. The guidelines regarding implementation of scheme may be prepared by the state authorities to give directions to schools. The guidelines may include following steps:

#### **Steps to be taken before launching the scheme:**

1. To make functionaries aware about the scheme.
2. To build capacity in them with regard to technical aspect of the scheme.
3. To elicit their opinion and suggestions.
4. To help them prepare new time table with a provision for A.H.P.L. components.
5. To help them prepare new report card having columns for both scholastic and co-scholastic areas.
6. To assist them in preparing a register/proformae for recording the observations.
7. To develop an understanding for filling up various proformae for monitoring.

#### **Steps to be taken during implementation:**

1. To ensure that the awareness of scheme has been created among students, parents, teachers, principal and management.
2. To observe periodically the efforts made by teachers in developing different aspect of personality growth.



- 3 To ensure that the scheme is being implemented systematically in case of any lapse or deficiency on the spot interventions may be provide to remedy the problem.
- 4 To collect feed back from the school and analyse in terms of difficulties and progress of implementation
- 5 The analysis of the feedback may be used in modifying the scheme, giving, ideas to educational administrators for preparing guidelines to be given to the schools
- 6 To play a role of facilitator

### **Monitoring**

These steps may be undertaken only when there is a provision of strong mechanism of monitoring is there. You all are aware with the word 'monitor'. In the school system a monitor in every class is selected to assist teacher in various activities. But, here 'monitoring' means overseeing the execution of the guidelines in true spirit as well as providing intervention on the spot in case there is any kind of deviation. Another situation may be where the teachers are finding difficult to execute certain guidelines the monitor is expected to provide solution as well. This may be in the form of explaining the guidelines or modifying the guidelines in view of the local resources. Monitoring has different purposes. The main purpose of monitoring is to improve the evaluation practices in school in order to increase the level of achievement of children. It is for strengthening and enriching the teachers. This means sorting out the academic problems of teachers regarding their day to day teacher learning and evaluation practices. It is not for admonishing or making any adverse entry in their professional record.

### **How to monitor**

Monitoring is smooth continuous and systematic observation of the implementation of guidelines provided in the scheme. Monitoring in a school is a mechanism of overall coordination and supervision of the tasks taken up by a team like head of institutions and teachers. The team needs to answer the following questions

1. Who will monitor the system
2. How the monitoring tasks will be carried out.
3. How to get the feed back during the monitoring by the monitors
4. How to utilise the obtained feedback.

### **Who will monitor the system:**

This is the most important question to be answered. In a school system the simplest way is to involve teachers, head teacher/Principal and education officer. In a three tier system the following may be given the responsibility of monitoring from top to bottom

<b>Tier</b>	<b>Person</b>	<b>Monitoring Frequency</b>
1 <sup>st</sup> Tier	Education Officer	Twice or Thrice in a year
2 <sup>nd</sup> Tier	Principal/Headmaster/or Incharge Primary	Once in a month
3 <sup>rd</sup> tier	Teachers on rotation basis	Weekly/bimonthly

It is pertinent to mention that teachers should be involved in the monitoring process and must have a positive approach towards it then only the evaluation practices may be strengthened. A senior teacher should not feel offended if a junior teacher is monitoring and rendering useful advice. In fact, in this process teacher is not supposed to play a role of supervisory in literal sense. Therefore he is not supposed to enter any adverse remark against any teacher. Moreover, the teacher who is being supervised must keep in mind that this monitoring is for the system not for individual's work. Besides, the interpersonal relationship should not be affected by monitoring process.

### **How the monitoring tasks will be carried out**

Under this the role and responsibilities of the persons in different tiers should be chalked out clearly. The major role and responsibility of each level monitor may be as under.

The specific roles and responsibilities of each level functionary

#### **I Tier: Education Officer:**

- To play a role of facilitator.
- To ensure that each school must have the guidelines provided for CCE Scheme
- To ensure that teachers understand the CCE scheme.
- To check various tools developed by the teachers for assessing the performance of the students in both scholastic and co-scholastic areas and discuss in staff meeting for further improvement.
- To provide feed back regarding the implementation of the scheme to education officer.
- To resolve problems of teachers related with school activities.

#### **II Tier: Principal/Headmaster/Incharge**

- To organise meetings of teachers time to time to discuss matters related to SBE.
- To provide required material to teacher for preparing teaching aids and activities
- To co-operate with teachers and discuss their problem related with implementation of School Based Evaluation (SBE)
- To organise a meeting of parents and brief them about the SBE and seek their cooperation in various areas particularly in the development of personal social qualities
- To monitor teaching of teachers and provide necessary help
- To supervise and check various records maintained by the teachers and provide guidance wherever required
- To make observations and give suggestions on various activities organised by the teachers and apprise them for their efforts.
- To avoid to pass any negative remark/comment against teachers

- 5 Whether the teachers are
  - 1 preparing design and prior to development of the test
  - 2 check the test paper prepared vis-à-vis to design for the preparation of test
  - 3 prepare marking scheme
  - 4 check randomly already evaluated answer scripts of student to ensure correctness of the evaluation
  - 5 diagnosis of weaknesses is done
  - 6 remediation measures are provided
  7. random checking of grading in scholastic area

Aspects to be covered in the proformae for

### **Incharge Primary Section**

1. Whether meeting was held with the teachers to ensure their awareness of responsibilities?
2. Whether students are aware of the evaluation procedure and calendar of activities
3. Whether parents are aware about the scheme?
4. How many times the PTA meet was held in terms of students weakness
5. Whether the progress of the child was discussed with the parent?
6. What actions are taken on the basis of suggestions regarding the scheme made by the parents?
7. Whether random checking of the Design, Blue print, Unit Tests, Marking Scheme and Answer Scripts is done
8. Whether a meeting was held with coordinator and teachers to review the following  
The test, Individual work of students, Group work, Project and assignment, the evaluation of both process and product, Diagnosis of the hard spot of learning , retesting and oral testing
9. Whether random checking of the following tools of observations such as Check list, Rating scale and Anecdotal record.
10. Whether random checking of Observation procedure, Recording of observation, Reporting procedure, Grades used in scholastic area and grades used in co-scholastic area is done

Aspects to be covered in the proformae for

Teachers

(To be filled every month)

- 1 Did you make students aware of the evaluation procedure and calendar of activities
2. Are parents aware of the scheme?
3. Did you participate in HM's meeting to review the test?
4. Do you develop the design for a unit test, question paper on the basis of and marking scheme along with the unit test

- 5 Do you evaluate the answer scripts adhering to marking scheme?
6. Do you give students of class III and V the project work, assignment and home work ?
7. Do you diagnose hard spots of learning by evaluating answer scripts of test, individual work, assignment, project etc.?
8. Do you provide remediation? How many times you have done? Do you retest the low achievers to ensure their learning growth?
9. How did you motivate children to participate in co-curricular activities?
10. How many check lists you have prepared?
11. How many anecdotal records you have prepared?
12. How many times the observations are recorded?
13. What kind of cooperation and support did you get from parents?
- 14 Whether you do you get guidance from Incharge Primary Teacher?
- 15 What types of difficulties have you faced in implementation of the scheme?
- 16 Whether you would like to continue the scheme in the school and why?

Time taken in the various activities

Grade____	Grade____	Grade____	Grade____	Grade____
Subject____	Subject____	Subject____	Subject____	Subject____
No of Students____	No of Students____	No of Students____	No. of Students____	No of Students____

Scholastic	Time	Time	Time	Time	Time
1 Design					
2 Blue Print					
3 Question paper					
4 Marking Scheme					
5 Marking Answer Script					
6 Maintaining Records					
7 Awarding Grade					
8 Reporting					
Co Scholastic	Time	Time	Time	Time	Time
1 Observation Schedule for co-curricular area					
2. Recording of Co curricular Area					
3 Development/ Observation PSQ					
4 Recording of PSQ					
5 Rating					
6. Grading					
7 Reporting					

- Teacher will supply actual time taken in these activities every month
- Incharge Primary Section will compute average time taken on the basis of information received from different teachers in the school

Besides, above stated areas for monitoring under SBES, the time taken for various activities undertaken by the teacher may also be collected. This will provide help in computing the load of the teachers with respect to the demand of the scheme.

#### **How to utilise the obtained feedback**

Feedback will be analysed with a view to further improving the scheme and removing the difficulties of the teacher.

Effective monitoring may result into effective implementation of scheme which in turn may improve the quality of learning. However, effective implementation of scheme of evaluation may also require effective teaching. In connection with effective teaching it is observed that some of the teachers are deficient with regard to their content knowledge which they are teaching. This creates adverse effect on the learning of the students. Therefore, content enrichment programmes may be organised to strengthen the content knowledge of teachers in different subjects. For the success of implementation of the scheme and its institutionalisation it is necessary that the teachers must be highly motivated, committed and target oriented. They need to adhere all the aspects of scheme and its implementation strategy in true spirit.

**EXEMPLAR BEHAVIOUR INDICATORS OF  
SOCIAL PERSONAL QUALITIES AT DIFFERENT LEVELS**

S.No.	Area	Classes I & II	Classes III to V
1	Cleanliness	<ul style="list-style-type: none"> <li>- Comes neat and clean in school</li> <li>- Washes hands before and after meals</li> <li>- Keeps his/her seat clean and in order</li> <li>- Keeps books properly covered</li> </ul>	<ul style="list-style-type: none"> <li>- Keeps class room/ surrounding clean &amp; neat</li> <li>- Keep his/her things clean and in order</li> <li>- Writes in appropriate note book/copy</li> <li>- Puts waste materials/ papers in dust bin</li> </ul>
2	Obedience /Discipline	<ul style="list-style-type: none"> <li>- Follows instructions given by teacher</li> <li>- Does not disturb other children</li> <li>- Does not always argue with teacher</li> <li>- Waits for his/her chance/turn</li> </ul>	<ul style="list-style-type: none"> <li>- Presents his/her views politely whenever he/she has difference of opinion</li> <li>- Respects the verdict given by the team leader</li> <li>- Follows codes of the school</li> <li>- Motivates other to maintain discipline</li> </ul>
3	Cooperation	<ul style="list-style-type: none"> <li>- Shares eatables/writing materials etc with classmates</li> <li>- Enjoys doing group work/playing group games</li> <li>- Shares play materials with others</li> <li>- Plays comfortably in group games</li> </ul>	<ul style="list-style-type: none"> <li>- Helps teachers/students in distributing materials in the class</li> <li>- Shares school assignments with other students who were absent</li> <li>- Informs absent students about activities of the school/class</li> <li>- Helps other students by all means if asked for.</li> </ul>
4	Regularity /Punctuality	<ul style="list-style-type: none"> <li>- Comes school regularly</li> <li>- Does homework regularly and timely</li> <li>- Completes the class work in class it self</li> <li>- Keeps himself/herself (his/her work) up-to-date</li> </ul>	<ul style="list-style-type: none"> <li>- Participates in school activities regularly</li> <li>- Helps in finalizing time schedule of activities</li> <li>- Prepares and follows time table of activities developed for himself.</li> </ul>
5	Protecting Environment	<ul style="list-style-type: none"> <li>- Does not waste paper</li> <li>- Discourages wastage of water</li> <li>- Protects greenery in and outside the school premises/home</li> <li>- Does not run on grass</li> <li>- Does not write on school wall</li> </ul>	<ul style="list-style-type: none"> <li>- Uses water judiciously</li> <li>- Asks others to avoid wastage</li> <li>- Motivates other students to keep school premises clean and green</li> <li>- Protects school property</li> <li>- Comes forward to set examples in protecting misuse of things</li> </ul>

S.No.	Area	Classes I & II	Classes III to V
			<ul style="list-style-type: none"> <li>Organizes small group discourses on protection of environment.</li> </ul>
6	<b>Respect for Elders</b>	<ul style="list-style-type: none"> <li>Greets teachers</li> <li>Uses appropriate addresses that reflects respect and regard to elders Sir, Madam, Didi)</li> <li>Maintains decorum while interacting in group</li> <li>Avoids making insulting /comment mockery/fun of teachers/elders</li> </ul>	<ul style="list-style-type: none"> <li>Talks only after taking permission</li> <li>Does not use derogatory remarks</li> <li>Gives chance to elders if waiting for his turn</li> <li>Offers seat to elders in gatherings</li> </ul>
7	<b>Dignity of Labour</b>	<ul style="list-style-type: none"> <li>Enjoys doing a work with his own hands</li> <li>Follow instruction for cleaning the class room</li> <li>Likes to pick up waste paper, stones in the ground</li> <li>Helps teacher's carry bags, notebook and other such material</li> </ul>	<ul style="list-style-type: none"> <li>Participate willingly and consistently in the activity involving hard word, manual</li> <li>Initiates such work</li> <li>Enjoys doing a work with his own hand with friends, others in the school is offered</li> <li>Appreciates the service offered by any one</li> </ul>
8	<b>Truthfulness</b>		<ul style="list-style-type: none"> <li>Tells truth</li> <li>Deposits things with teacher found in the class room/school</li> <li>Accepts his/her mistakes</li> <li>Does not change his/her statement frequently</li> </ul>
9	<b>Patriotism</b>		<ul style="list-style-type: none"> <li>Tells life instances of national heroes during assembly</li> <li>Pays respect to national symbols</li> <li>Likes patriotic songs</li> <li>Show keen interest in playing roles of national heroes.</li> </ul>
10	<b>Responsibility</b>		<ul style="list-style-type: none"> <li>Does the assigned work carefully and with responsibility</li> <li>Takes care of the welfare of junior students of his/her school</li> <li>Plays active role in organization of field trips.</li> </ul>

S.No.	Area	Classes I & II	Classes III to V
			cultural programmes - Offers his/her services whenever asked - Does not shift responsibility assigned to him on others - Feels concerned about school, teachers and students of his/her school if they are in need

### Self Appraisal

- 1 Tick the subjects you did well in

English		Dance	
Maths		Drama	
Hindi		Games	
EVS		Drawing	
		Music	
		Craft	

- 2 Why do you think you did well? (Write in two sentences)

---



---

- 3 Why could you not do so well in other subject (Write in two sentences)

---



---

- 4 Tick (✓) the subjects you need to work harder?

English		Dance	
Maths		Drama	
Hindi		Games	
EVS		Drawing	
		Music	
		Craft	

- 5 Why do you feel you need work harder in the subject?

---



---

- 6 Who helps you in your studies at home?

---



---

- 7 Which subject you like most?

---



8 Which games do you like most?

---

9 Which activity you like most?

S.No	Activity	Write Activity	Prize Won
1	Music		
2	Dance		
3.	Drawing		
4	Drama		
5	Competition		
6	Craft		
7	Computer		
8	Debates		

10 Which good habit/quality you feel you have? Write one very good quality you having?

---

11. What do you do in your spare time?

---

---

12. What do you want to be in future?

---

---

**Name of the Child:**\_\_\_\_\_

**Class:**\_\_\_\_\_

## Peer Assessment Sheet

**Direction:** Write one very good quality/habit you have noticed in each of the following students of your class

S.No.	Name of the Student	School subject in which he is very good	Very good quality	Co-curricular Area in which he is very good
1	Mohit			
2	Shyama			
3	Aditi			
4	Suresh			
5	Gauri			
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

Name of the Student \_\_\_\_\_

## Anecdotal Record Sheet

**Direction:** Give factual details of the significant incident that occurred in the school specifying the roles of different individuals in it. Also the steps teacher/school took in the matter and what were the implications

Name of the Student

Class

Date of Incident

Factual details of Incident

Measures taken by teacher/school

Name & Sig. of Teacher\_\_\_\_\_

(who Prepared ARC) \_\_\_\_\_

Date

Signature of the Vice Principal\_\_\_\_\_

Signature of the Principal\_\_\_\_\_

## Chapter-II

### *Concept of Evaluation*

Evaluation is an integral part of the daily activity in the classroom. As a teacher we sometimes praise children in recognition of their performance, tell them to work more quietly, give support to those having difficulties, mark their work and plan the next step for children. Our action in each case is in response to assessment we make about the children. This is what may be called as continuous evaluation. But many of us do this without considering it evaluation. In schools, generally evaluation means giving test to the students, marking answer scripts, ranking the students and distributing report cards to parents showing their achievement.

As we already know that education plays a role of changing the learner's knowledge and behaviour manifested in changes in academic area, personal and social behaviour, interest and attitude whereas evaluation is the process of determining what these changes are? Also it helps in knowing the extent up to which the objectives of education are achieved. Further, it guides us as teachers to modify methods/style and diagnose the learning difficulties or gaps and provide remediation.

In the light of the importance of evaluation in the educational process the National Curriculum Framework of School Education (2000) clearly states,

“Evaluation is a systematic process of collecting, analysing and interpreting evidences of students' progress and achievement both in cognitive and non-cognitive areas of learning for the purpose of taking a variety of decisions” In other words evaluation is a systematic process which has four major steps. These are:

- Collecting evidences
- analysing the evidences
- interpreting the results and making judgement
- taking decision.

In the above evidence means scores from tests, observations of a child's behaviour in different situations etc. When we administer a test and observe the behaviour of a child we are trying to collect the information of development of his growth. Tests provide the marks or grades and observation gives an idea or impression. These marks and observations are analysed and interpreted. This interpretation leads to taking a decision about the child - whether the child is progressing well, needs any help during the session and at the end of the session and can be promoted to next class. Therefore, evaluation is decision-oriented process that intends to lead students towards better performance. It helps to bring about qualitative improvement in education.

#### **Different terms used for evaluation**

Sometime we use 'Measurement', 'Evaluation', 'Assessment' and Examination synonymously. But, there is a slight difference in their meanings.

**Measurement** is only numeric description of an event, behaviour, or characteristic of an individual. It provides the scores that give an idea of the levels of

proficiency or performance in any area. For example 70 out of 100 in a test of any subject provides a measurement of his achievement in that subject.

**Evaluation** goes beyond this. It not only includes measurement but also includes interpretation of results and judgement. Therefore, it expresses quantitative as well as qualitative description of child's performance. Evaluation helps in judging the performance of a child with reference to his own performance at earlier occasion. It further helps in comparing his performance with that of other students. The process involving construction, administration and scoring of tests is called measurement whereas interpretation of such scores saying whether they are good or bad for a specific purpose is evaluation.

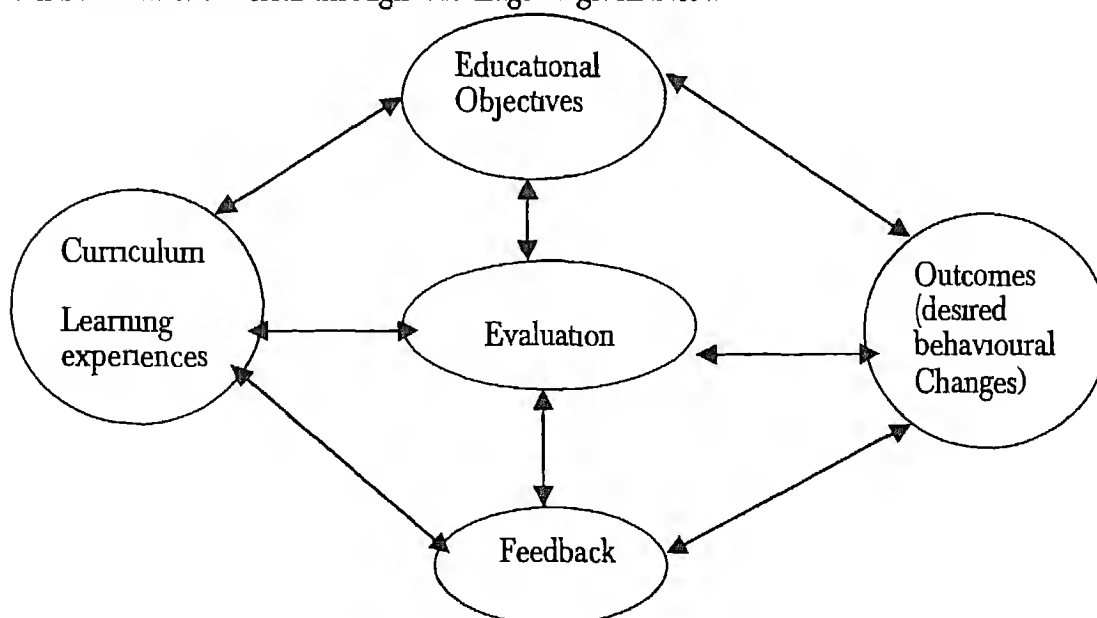
**Assessment** refers to the process of estimating the status of pupils achievement and development in certain aspects of learning.

**Examination** is a process of determining the level of achievement of an individual on the basis of formally conducted test.

### Importance of Evaluation

Evaluation is both process and product. When we talk about the evaluation process, it mainly focuses on teachers as the teacher has to decide why, what, when and how to evaluate and how to make sense of it.

The thoughtful teacher uses the information of students' results as a guide to his/her own teaching practices. What has been grasped? What needs revision? Who has failed to understand? These are the questions, that the teacher should continuously ask to himself. In the process teacher is able to assess own performance and becomes aware of her strengths and weaknesses. The importance of evaluation in the process of education can be made more clear through the diagram given below.



Education is a process of bringing about desired changes in pupil's knowledge and behaviour which lead to attainment of educational objective as specified in policy of education. At this stage it is sufficient to recognise that teachers are deliberately trying to produce changes in pupil's behaviour. As a result of their teaching they want their pupils to acquire knowledge and develop values and skills as specified in curriculum. This requires the teacher to teach effectively taking into account the age, previous knowledge and maturity level of the pupils. Through this process the teacher provides certain learning experiences, which is the next important component of educational process. Another important component is evaluation. To make judgement about the pupil's progress and to obtain feedback, we can use certain techniques such as observation, written/oral testing etc. and tools i.e. rating scales, observation schedules and tests, etc. This whole process is interrelated and interactive.

### **Purpose of Evaluation**

A number of important purposes are served by evaluation. It provides feedback regarding the attainment of objectives of teaching-learning of a subject in particular and education in general. Further, it encourages the teacher to use effective teaching methods, build healthy environment for teaching-learning and select appropriate teaching-learning material.

Besides, there are some other purposes of evaluation. These may be put as under:

- (i) diagnosis of specific weaknesses, guide in preparing remedial instruction
- (ii) provision of continuous record of achievement
- (iii) collection of information about the progress of the pupil, to other teachers, parents and other interested persons
- (iv) placing pupils in rank order
- (v) helping in taking decision for promotion of pupils' to next class
- (vi) predicting future performance
- (vii) increasing motivation and self-confidence of pupil

Besides, these feedbacks ultimately provide directions for modification in educational objectives and goal. Feedback also helps in improving the curriculum, syllabus and textbooks.

### **Kinds of Evaluation**

Broadly, evaluation may be classified into informal or formal as mentioned earlier. Most of the evaluation done in the classroom is informal evaluation. It is nothing but daily business of looking at what pupils are doing, assessing what they need and then responding with, for example a smile, an explanation, praise or a suggestion. It is an integral part of teaching. These informal evaluations are not planned but they form the basis of the constant interaction between teacher and children and also helps in diagnosing the weaknesses of learning of children. It may be in the form of surprise check as well. While making informal evaluation the teacher gathers information as it

arises from the situation and also record the information if something significant is collected

However, for making formal evaluation the teacher determines in advance the purpose for the assessment and the criteria against which the outcomes will be measured. Planning is also done in advance for the ways to collect and record the evidence. For example preparation of question paper is a part of formal evaluation

Both types of evaluation, the informal and formal are equally valuable and a teacher should develop skills in conducting evaluation in each way. It is important, however, that the teacher understands the purpose of each type of evaluation rather than become too concerned with its name

### **Formative Evaluation**

Formative evaluation includes both formal and informal evaluation. The purpose of formative evaluation is to identify the achievement level and progress of a child in order to plan the next step in teaching and learning. It is used to check learning progress of students during instruction. It is an integral part of teaching learning process provides continuous feedback to both teachers and learners concerning learning successes and failures. It is developmental in nature.

Diagnostic testing is also a part of formative evaluation. If a student does not perform well continuously in any subject, then a more detailed diagnosis is required. It involves the use of specially prepared diagnostic tests. The primary aim of diagnostic evaluation is to identify the learning difficulties and to formulate a plan for improvement i.e. remedial action.

### **Summative evaluation**

Summative evaluation is done at the end of a terminal stage to establish total achievement of a child, for example at the end of unit a term or a year. It is used for assigning grade and certifying mastery of the expected learning outcome. It helps in making judgement for helping the student to move on to next class. The tools and techniques used for summative evaluation generally are selected by teacher.

### **Approaches to evaluation**

There are three approaches with the help of which we make judgements about children's learning. These approaches include comparison of performance within the group, comparison within the set criteria, comparison of the students performance with his/her earlier performance. The differences in these three approaches lie in the distinction of what we decide to take as our yardstick

### **Comparison of performance within group (Norm-referenced testing)**

If a teacher decides to compare performance of a child with other children. He is finding the relative performance of individual within the group. This type of evaluation is designed to enable comparative judgements against other individuals; to know where a child stands in a group. For example, if you are examining a class of 20 students of class IV and decide the accepted percentage as 80% and above Grade A. Now out of these 20 students, Ramesh secured 80% A grade, whereas Suresh secured 75% B grade. This indicates the following

1. Both Ramesh and Suresh are beyond or above expected level
2. Ramesh performed better than Suresh.

### **Comparison with the set criteria (Criterion-referenced testing)**

In order to get specific information about an individual's learning strengths and weaknesses, it is essential to have a clear picture of what is to be learnt, i.e. competency or intended learning outcomes which will serve as a criterion for evaluation. The relevant assessment technique is then selected to procure the evidence of achievement of specific learning objectives/criteria. In other words, the criteria for the child's success means that a child has achieved the intended learning outcomes. For example, in a competency of counting of Numbers for Class I i.e. counting of 1 to 10. If on this competency, Ramesh has succeeded to count 8 numbers in sequence out of 10. It means he has mastered the competency by achieving 80% i.e. criteria for mastery. This reflects that the child's performance is compared against predetermined criterion. This type of testing ensures mastery over the particular competency leading to development of quality. This is not ensured in the comparison of performance in a group.

### **Comparison with one's own earlier performance (Self-referenced testing)**

When a student's performance is judged in relation to the student himself/herself on the basis of his/her own performance, then it is considered as self-referenced evaluation. It is necessary to say whether a student has performed better this time than the earlier or his performance has gone down. Further, he needs improvement by remediation in case his performance has gone down otherwise he is ready to take up new concepts.

For example, Ramesh, a student of class IV has performed in Unit tests I and II in three subjects as under:

Criteria 80% A Grade

Subject	Unit Test	Unit Test	
Language	85 A	84 A	Achieved criteria
Maths	79 B	95 A	Improved
EVS	83 A	65 B	Declined

Now you see yourself where Ramesh requires remediation and where he can take up new concepts.

### **Evaluation-Holistic view**

There are different ways of collecting evidences. These may be collected by assessing pupils' produced things or their process of learning. Process of learning consists of participation, performance and oral competencies of children. So, as a teacher we have to evaluate pupil's work in progress as well as final product of that work. Evaluation views learner's progress as a whole covering scholastic and co-scholastic aspects. The scholastic aspects of a primary child require different learning targets to be accomplished for each subject e.g. Languages, Mathematics and EVS. AHPL. Different tools and techniques for the assessment of different areas may be employed.



The co-scholastic aspect of a child requires different learning targets in different areas such as art education, physical and health education, work experience and personal social qualities to be accomplished. These can be classified in two major groups i.e co-curricular activities and personal-social qualities. The above holistic view of Evaluation can be projected through the concept of CCE in a better way. Let us understand its different aspects.

### **Concept of CCE**

There are three terms involved in CCE. These are **continuous, comprehensive and evaluation.**

Continuous refers to regularity in assessment. Since the growth of the child is a continuous phenomenon, it should be evaluated continuously and the progress of the learner should be evaluated frequently (periodically) which means that the evaluation has to be integrated with teaching and learning process.

The other term is comprehensive, which refers to both the scholastic and co-scholastic areas of pupil's growth. In fact comprehensive evaluation covers the whole range of student's experiences in the context of total school activities. It includes physical, intellectual, emotional and social growth comprising of social personal qualities, interest, attitude and values. It requires a variety of techniques of evaluation for carrying out comprehensive evaluation.

The term evaluation has already been dealt with at length earlier.

### **Characteristics of CCE**

Following are the main characteristics of CCE.

- It is informal and formative in nature
- It is based on the assumption that the teacher knows his pupils best. So, he should only be entrusted with the responsibility of evaluation
- It provides opportunities for the use of multiple techniques of testing such as written, oral, observation, interview etc.
- It is built into the total teaching-learning programme rather than done at a specific point of time
- It provides opportunity to teacher for regular diagnosis of learning difficulties followed by remedial measures.
- It involves analysis and interpretation of the evidences of achievement to arrive at right decision and make judgement.

In the light of above a comprehensive scheme of evaluation at primary level has been developed, tried out and finally improved on the basis of experiences of the practicing teachers involved in its implementation. The School Based Evaluation-Scheme along with its implementation strategy has been already given in the previous chapter.

## Chapter III

### *Evaluation of Scholastic Areas*

Scholastic area refers to curricular areas such as language, mathematics, Environmental Studies and AHPL. While evaluating, these areas four major questions arise in the mind of evaluator. These are:

1. Why Evaluation ?
2. What is to be evaluated ?
3. How to evaluate ?
4. When to evaluate?

In responding to these questions we have to keep in mind that every time when we do something in the area of evaluation, we as teachers, are involved in deciding what to select and what to reject. In this decision making process we are to be fully aware of options available. For example, if we have to evaluate the speech competence of the child, we have to be clear as to what exactly we want. For example do we want 'answers of the questions,' 'self expression', 'participation in a dialogue'. The clarity in purpose, clarity in specific competency to be tested helps us in deciding other matters such as what technique, what test, when to evaluate etc. we do many of these things without thinking clearly and so we do not get the impact of it. Let us make a rule now. We have to be conscious of every decision.

Let us take, now, these questions one by one

#### **Why evaluation ?**

Evaluation facilitates a teacher to know the pace of learning as well as level of learning of a learner. The pace and level of learning may be evaluated in terms of knowledge and performance of the learner.

The performance of learners in scholastic areas can be evaluated during the process of transaction as well as after completion of instruction in a regular sequence. As stated in earlier chapter the former is formative evaluation and the latter is summative evaluation. The evaluation in scholastic areas is mostly focussed on the attainment of instructional as well as educational objectives. Some of the important purposes of evaluation in scholastic areas are to-

- know the efficacy of instruction that is capacity to produce desired results
- determine the rate of progress of learners, this means achievement and its direction at different point of time
- motivate learners for better learning
- improve the quality of learning
- identify children in different ability groups
- predict the type of support for the learners to be used in next class. The support here means identifying learning problems and overcoming them

## **What is to be evaluated?**

The teacher in fact evaluates learning outcomes to find out whether same have been achieved or not. The learning outcome means desired behavioural changes resulting from the learning experiences to the learners. These learning outcomes are based on instructional objectives which are pre-determined. It is relevant for a teacher to know what do instructional objectives mean. The instructional objectives are pre-determined guidelines for a teacher to deal with the content in a particular subject for a particular class. These provide direction to a teacher – what is to be taught on a particular topic and up to what level. Keeping these in mind teachers organise activities in the classroom for the learners. Further these objectives also set criteria for assessing pupil's performance. These instructional objectives are generally classified at different levels i.e. knowledge, understanding, application and skill.

The progress of the learner is assessed by the teacher during the teaching-learning process as well as at the end of the task. In evaluation, the teachers must keep in mind the objectives of teaching-learning and testing. Although it is not happening in practice. Sometimes 80-90% questions in a question paper cover only knowledge objective. The appropriate reason may be less awareness among them about specification of objectives and modus-operandi of evaluating the objectives. To ensure the learning achievement among learners teacher tests these objectives by using various techniques and tools. Besides, these help teacher to understand success and failure of his/her teaching, hard spots of learning of the learners and pace of learning.

As mentioned earlier the instructional objectives can be classified into three major levels. Knowledge, understanding and application for developing and testing intellectual ability in the children. Whereas, skill objective helps in developing psychomotor aspect of the personality growth.

### **Knowledge**

When a child is asked to recall or recognise a fact, concept, process etc. and reproduce it as he/she has learned is termed as acquisition of knowledge. This is the lowest level of learning.

### **Understanding**

Understanding is the next step of learning, ahead of knowledge, when a child can explain a fact and concept in his/her own words, gives examples, detects errors, compares two phenomena, puts things in different groups, arranges in order and correlates two concepts, he/she is displaying his/her understanding related to concepts under a topic of a subject. Understanding includes knowledge as well. The child can not understand a concept unless he has its knowledge- e.g. for class III EVS, if a teacher gives a question on the concept – types of clothes as

What type of clothes people use mostly at cold places?

For answering this question child must have a knowledge of different types of clothes and its relation with the climate. Only then he/she may be able to answer the question correctly. This question belongs to Objective – understanding (identifies relationship)

## **Application**

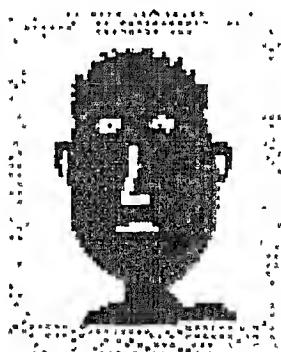
Application is a higher stage of learning which includes both knowledge and understanding of a particular concept/topic. Under this a child establishes cause – effect relationship, gives reasons for this relationship, interprets the given data/situation, makes judgements for a situation, predicts consequences etc. e.g. for class IV EVS, if a teacher gives a question as ‘ why the roof of houses made up of tin are painted in red colour in hilly areas?’

For answering this question the students are required to know the climate of the hilly areas, characteristics of tin and properties of different colours and understand the relationship among metal, colour and heat. Only then he can give the reason of the using red coloured tin roofs in houses at cold places.

Hence, it is clear from the above example that there are three level of mental processes involved in answering such type of application question.

## **Skill**

At this level under skill objective, a child is required to develop the ability to translate verbal information into figural/graphical/pictorial information. For example a teacher asks his/her student to draw a human face. For responding this question, the student will try to transform the verbal instruction into a drawing of human face using his/her head-hand co-ordination.



**Picture of Human Face**

Besides, in EVS, when the questions related to locating places in the map, colouring places, and labelling certain diagrams, are asked, they are also included under this very objective.

## **How to evaluate?**

The process of evaluation involves in selection of suitable tools and techniques for collecting evidences to know the progress of performance among learners. The quality of evaluation depends on the suitability of evaluation tools selected. Hence, in order to make a right choice of tools and techniques, a teacher should be clear about what is, exactly, to be evaluated. A teacher is also required to know the strengths and weaknesses of tools and techniques of evaluation in order to use them purposefully, meaningfully and effectively. Since a variety of instructional objectives are to be evaluated, different evaluation techniques need to be utilised simultaneously. This would help teacher to

collect more evidences on various aspects of learner achievement on different objectives Hence the process of evaluation involves a number of steps These are

- (i) Determining the objectives
- (ii) Selection of technique
- (iii) Selection of tool
- (iv) Preparation of a time schedule
- (v) Administering the tool
- (vi) Marking the responses
- (vii) Analysis and interpretation –1.diagnosis 2 remediation
- (viii) Reporting

### **Techniques and Tools**

Evaluation Technique is a set of definite procedure used for knowing the performance of learner whereas a tool is an instrument to collect evidences about student's performance Following are techniques and tools of evaluation used at primary level for scholastic areas.

#### **1. Observation**

##### **(a) Technique**

It is one of the important techniques of evaluating classroom processes and progress of learner during the work such as class work, project, activity etc In this it helps in knowing the pace and level of learning of the learner We often use this technique whether knowingly or unknowingly. This technique may be used in two ways-spontaneously and deliberately

(i) **Spontaneous observation**- It helps teachers to observe a learner in natural setting. It is done without any prior planning. It has inbuilt diagnostic and remedial components

(ii) **Deliberate observation**-In this teacher creates setting for observing certain behaviours He/she makes a plan for observation on pre-determined behaviour He/she also tries to know hard spots (difficulties) of learning of the children and plans for further remedial action

##### **(b) Tool**

For observation observation schedules may be developed and used as per requirement of the pre-determined behaviour. An illustrative observation schedule is provided below to determine the learner's participation in mathematics class.

<b>Class –</b> <b>Subject / Topic</b>		<b>Date of observation:</b> _____ <b>Name of Observer:</b> _____ <b>Name of Student :-</b> _____ <b>Roll No.</b> <span style="border: 1px solid black; display: inline-block; width: 30px; height: 15px; vertical-align: middle;"></span> <span style="border: 1px solid black; display: inline-block; width: 30px; height: 15px; vertical-align: middle;"></span>		
<b>Area of Observation: Learner's Participation</b>				
S. No.	Behaviours to be observed	Yes	No	Remarks
1	Attentive			
2	Following instructions			
3	Responding to questions			
4	Enquiring			
5	Talking with another student (Disturbing the class)			
6	Reading other Material			
7	Sitting passively			
8	Any other			

## 2. Oral

### (a) Technique

In oral technique only verbal questions are asked. Oral technique may also be used in two ways: spontaneous and deliberate. For example, while teaching we ask the question on the spot and elicit answer from the children. This is the use of spontaneous oral technique. On the other hand when we prepare some questions before hand to assess the progress of learners, it is called deliberate oral technique. Quiz, puzzle can also be a part of oral technique.

### (b) Tools

Questions asked on the spot and the questions prepared for oral testing are tools.

## 3. Written

### (a) Technique

We are all familiar with the written technique and mostly it is used for evaluation in the schools. In this technique, students have to write /select the answers of the questions given.

### (b) Tools

Achievement Test, criterion referenced test and diagnostic test are the tools used for written technique. But almost all the time we depend upon achievement tests for evaluating children even though other two are equally important.

## Achievement Test

Achievement test may be of two types. Teacher made and Standardized. Teacher made test need no elaboration as we are familiar with them because we ourselves prepare and use as class test, unit test and term test. As far as standardized tests are concerned,

these are developed, tried out and analysed by expert group with reference to certain norms such as class, age etc

For any type of written testing, question framing is the most important requirement. Written questions are of different forms. Even at primary level teachers always prepare different forms of questions for class test, unit test and term-end examination. Hence, it is essential for us to know appropriateness, merits and demerits of a variety of questions. But before going through different forms of questions, let us see the qualities of a Good Question.

### **Qualities of a Good Question**

- Objective based:- A question should be based on a pre-determined objective and should be framed in such a way that it tests the objective effectively
- Content - While framing the question, the test writer should keep in mind that the question should test the same area of content which he wants to test
- Form of Question - The form of question depends on the objective and the content area to be tested
- Language:- A good question is framed in a clear, precise and unambiguous language, well within the comprehension of the student
- Difficulty level:- A question should be written keeping in view the level of the pupils for whom it is meant ranging from very easy to very difficult.
- Discriminating power.- A good question is that which can discriminate between good and poor students so far as the performance is concerned on that question.
- Scope of the answer - The scope of the expected answer is clearly delimited and defined.
- Value Point Specification of marks for different component of a question. If a question has different specific components then marks for each component may be specified

### **Forms of Question**

Questions may be of two types i.e. supply type and selection type

#### **• Supply Type Questions**

In supply type question, students are supposed to supply answer. These may be of the following type:

- Essay type/long answer
- Short Answer
- Very short Answer
- Fill in the Blanks.

- **Essay type/long answer**

At the primary stage traditional essay type of questions having long answers of many pages need not to be used. However, to evaluate the expression power, sequential organization of the content and skill of writing of the learner, long answer question expecting one paragraph/ 10-12 sentences may be used for classes IV and V. In a question paper use of more long answer questions may be avoided because it covers limited course content, increases subjectivity of scoring. It requires more time to answer the question by the student and evaluating the answer script by the teacher. Though this type of question is useful for assessing the creativity of children but in practice it is generally misused. Teachers dictate the answer and ask the students to cram it. That is how it leads to rote memorisation.

**Example:**

1. Write one paragraph or 10-12 sentences on the topic 'My teacher' (English)  
(Hints: appearance, teaching and good qualities).
2. Describe five factors responsible for air pollution.

**Short Answer Type**

Short answer type questions expect the answers in three to four sentences. These mainly help to evaluate the understanding of children. The abilities like comparing, discriminating, classifying, giving examples can be easily tested through these questions.

**Example**

- Q1. What are Indian National Festivals? Write names of two national festivals.
- Q2. What materials are used in building a pucca house? Write four only?
- Q3. Write three differences between Kutchha and Pucca House.

**Very Short Answer Type**

Very short answer questions are those, which have one specific testing point and can be marked quite objectively. More content can be tested through these questions. It helps in testing knowledge of the examinee by asking him to supply a word, phrase, or a figure or a sentence which is required for answering the question. It can be answered in one word or one sentence. It mostly takes one to two minutes to answer. Very short answer questions can be used profitably in all the school subjects and are easy to construct. There are many types of very short answer questions. For ready reference some are given below.

**Example**

- **Completion Type:** It is useful for testing expression in language.

Complete the following sentence

Q. I was worried because... ..



- **Analogy type**

Q 2. Lime stone      Marble, Coal: ... .

- **Location Type**

Q. Show on the map of India-Delhi, Bay of Bengal.

In language also such questions can be used for picking up the key ideas, key words or sentence, synonyms and antonyms, etc , from the given passage

### Passage

Sita and Sohan live with their grandfather in India. Their parents are working abroad. Sita is younger to her brother Sohan. He studies in Class VIII and his sister in class V. She is a beautiful and slim girl. His brother is fat but handsome boy.

Q Write antonyms of underlined words in the above passage

1 Younger \_\_\_\_\_

2 Beautiful: \_\_\_\_\_

3. Slim: \_\_\_\_\_

- **Question form**

Q. What is a Vitamin?

**Context Dependent:** This type of question is framed with reference to a context and which may be of two types such as pictorial and interpretative type

### Pictorial Type

#### Example

Q What are the occupations of the following

Persons

Occupation



## Interpretive Type

### Example

*Directions* Read the bus time-table given below and answer the questions that follow

**Himachal Pradesh Roadways Bus Service Time-Table**

Route	Dep. Time from Delhu	Dep. Time from other direction	Distance (in Km)	Fare (in Rs.)
Delhi-Bajnath	1815	1730	539	77 00
Delhi-Chamba	2000	1400	626	84 00
Delhi-Dharmasala	2145	1930	513	71 50

- How many routes are listed in the time-table?
- Which city is farthest from Delhi?
- For which place the fare is lowest?

### Fill in the Blanks Type:

In this type of question a statement is provided in which one word or two words at different places are removed and students are asked to fill in the blank with appropriate words. An example of this type is given below:

- There are \_\_\_\_\_ hours in a day.
- Hill stations are \_\_\_\_\_ in summer

### Selection Type Questions

In these type of questions students are supposed to answer them by selecting the correct answer out of the choices provided. Such questions are called objective type questions. While evaluating these type of questions when the answer is right give him full mark and for wrong answer no/zero mark. These may be divided into alternative response type, matching type and multiple choice type questions etc.

**Alternative Response:** In this type of questions students have to select one out of two alternatives as a correct answer. The different type of alternative response questions are as under

### True/False type Question:

In this type of question a statement is given and the candidate is asked whether it is true or false (T/F). These questions are easy to construct and score.

### Example

**Direction:** Write 'T' if the statement is 'True' and 'F' if the statement is 'False'

- a) Both animals and plants are living things
- b) All animals eat grass


### Right/Wrong type question

Put tick (✓) mark if statement is Right and (X) if Wrong

a) Liquids do not have a definite shape

☐

b) Ice is lighter than water

☐

### Yes/No Type /Question

Direction. Put tick (✓) on 'yes' if you agree and 'No' if you do not agree against each statement

a. We should play with knife

Yes

No

b. We should not tease small animals

Yes

No

c We should tease small kids

Yes

No

**Matching Type:** In matching type questions there are two columns. The words or statements given in column one are to be matched with the answers given in column two. The matching type question may be of the following

In this type of question two columns are used. In left column stimuli are presented whereas in right column responses are given. Pupil are asked to match the response with a given stimulus

### Example

– Direction Match the words given in column A with the meanings given in column B.

#### A

(i) Barber

(ii) Waiter

(iii) Baker

#### B

(a) One who makes bread/biscuits, etc

(b) One who cuts people's hair

(c) One who serves food in a hotel

(d) One who designs buildings, bridges, etc

### Check List Items:

In this type of items students are provided two/three alternatives as key list to make decision about a number of statements. In fact these items are extension of the simple check list.

### Example

**Directions:** For each of the following matters use letters to indicate whether the matter is a Solid(S)/Liquid (L)/Gas (G).

Matter	State
1 Water	( )
2. Mercury	( )
3 Vapour	( )
4 Iron	( )

### Fill in the blank

#### Example

- A \_\_\_\_\_ can talk (Crow/Parrot)
- Air is a mixture of \_\_\_\_\_ (gases/liquid and gases)

### Multiple Choice Questions

Multiple choice items are most common of all the objective type of question items. The multiple choice questions have two parts. Stem and alternatives.

**Stem**-In a stem the problem can be stated in the form of question (See example) It may be a complete or incomplete statement expressing a meaningful purpose (See example) It acts as a stimulus

**Alternatives**-A stem is followed by a list of solutions, called as alternatives choices or options. These may include words, numbers, symbols, phrases and full sentences The option which is the correct response, it is called key and remaining incorrect options are called as distractors These incorrect alternatives function to distract those students who have doubt about the right answer. Thus, the alternatives are in a way responses out of which the examinee is supposed to search right response.

Multiple choice questions are of two types i.e. question form and statement form. Examples of each form are given below.

**Direction**-Put (✓) mark or encircle the serial number of the correct answer

#### A. Question Form

Q. No 1 Which object is hard?

- (a) Cotton                      (b) Leather                      (c) Stone                      (d) Sponge

Q No. 2. Which of the following sinks in water?

- (a) Plastic                      (b) Cork                      (c) Paper                      (d) Stone

## B. Statement Form

Q No 1 The germinated seeds are called

- (a) Plant    (b) Seedlings    (c) Shrub    (d) Fruit

Q No 2 Leaves can prepare food if they are

- (a) Yellow    (b) Green    (c) Brown    (d) White

## Suggestions for Constructing multiple choice items

The construction of multiple-choice test items involves different steps. The first step is to prepare a statement or a question. The second step is to write one correct answer along with three wrong answers as alternatives. The following points should be kept in mind for construction of multiple choice questions. These are as under:

### I General

- 1 Each item should be related to a competency. It should not be linked with other question for answering.

### II Specific

Specific suggestions for constructing multiple choice questions are as under:

#### Example

Which object is hard	→	Stem
a Cotton	→	alternative
b Leather	→	alternative
c Stone	→	correct answer
d Sponge	→	alternative

In this example 'which object is hard?' is a stem in question form. The alternative C 'Stone' is the correct answer. Remaining alternatives of a, b and d are options. This is called format.

#### Format

Following are the suggestions regarding the format of multiple choice questions.

- Always keep a little space under the stem before providing the alternatives.
- Leave a larger margin for writing the alternatives.
- If the stem is in a question form, always start the alternatives with a capital letter.
- Do not put fullstop unless it is a complete sentence.
- If the stem is an incomplete statement, start each alternative with a small letter and also end each sentence by putting a fullstop at the end.
- Try to use at least four alternatives as options/alternatives in each question.

- The correct answer should be placed at the different positions in different questions.
- If the alternatives involve numbers only, then arrange them in an ascending or descending order.

### **Stem**

For constructing a good stem the following steps are required:

- Stem should be meaningful by itself and should present a single and definite problem.
- Try to use stem in positive terms, as a general rule.
- Avoid words like no, not, least and poorest, etc., because these words generally used in negative statements, and they do not test important outcome.
- Avoid the use of text-book language.

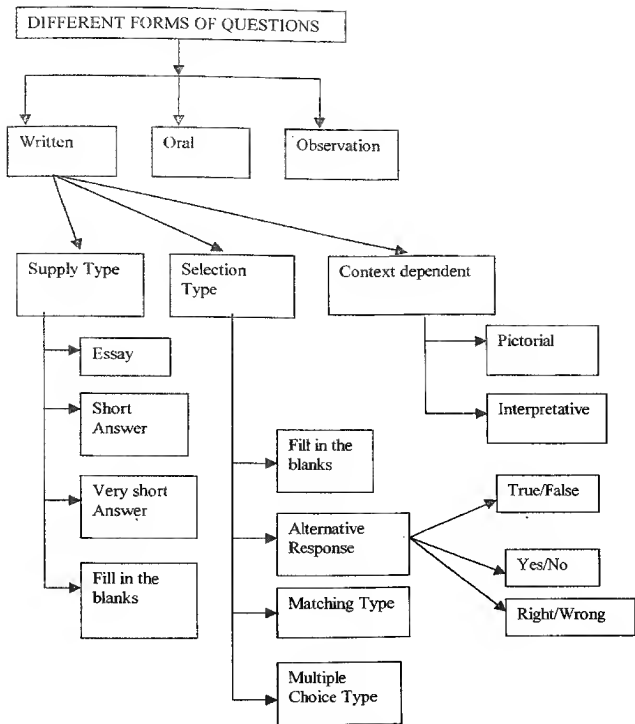
**Key-** key is the correct answer. It should be only one in one question.

### **Alternatives**

To make good alternatives the following points may be considered:

- Alternative should not be directly linked with the stem.
- Make the alternatives as brief as possible, because, it simplifies the task of the candidate and reduces the time required for reading of the question.
- The alternatives, if possible should cover a wider content to make a good test however they have to be closer to the stem.
- Avoid the use of "all of the above" and "none of the above".

The forms of questions discussed above may be used for different purposes of testing and also making judgement regarding the achievement of the students. If in a test, more varieties of the question forms are used then it will definitely help in testing various competencies in a better way. It is true that different forms have some limitations, but they also have advantages. Therefore, at the time of selection of question forms the teacher should keep in mind that what abilities she/he intends to test. Accordingly appropriate question form should be selected. All the forms of questions are presented in following flow chart.



These questions help in preparing a question paper. A question paper is the sum of different forms of questions put in on order based on variety of content areas for testing different competencies. A question paper needs to be a balanced one in terms of weightage to different objectives and the important content area to be tested.

#### **How to prepare a balanced question paper.**

In order to prepare a balanced question paper, a systematic process is required which has following steps:

- 1 Identification of content area.
- 2 Development of design
3. Development of blue print.
- 4 Writing of questions.
- 5 Assembling of questions in a form of question paper and preparing instructions.
- 6 Preparing scoring key/marking scheme.
7. Carrying of question wise analysis.
- 8 Moderation of a question paper

Before framing the question paper, content areas which are to be tested through test paper need to be analysed and prioritised. A paper setter should remember that trivial contents (unimportant) are not to be tested.

The design presents an outline which includes mainly the weightages to objectives, to forms of questions and to content/units/subunits. Besides, it indicates to time duration, maximum marks, estimated difficulty level and scheme of sections if any. A copy of filled in design is provided in the end of the chapter.

A blue print is a three dimensional chart indicating all the details given in the design. It helps in preparing different forms of questions based on different objectives covering the expected content. It also clearly indicates the marks awarded to each specific question.

Details about writing of questions have already been discussed earlier.

In a question paper there may be two/three divisions i.e. sections, based on forms of questions. Different forms of questions may be kept in different sections.

It is essential to prepare the scoring key, outline answers and the marking scheme before finalising the test for administration. Distribution of marks helps students in selection of questions. In marking scheme it should be indicated clearly for examiner that any of the points given in the expected out line answers or similar other points given by the paper setter may be taken as correct.

The question-wise analysis enables the test maker to know the strengths and weaknesses of the test more thoroughly.

Moderation (improvement) of a test may be carried out by a senior teacher, head teacher or by a group of teachers, through discussion. It is mostly useful when the same test is to be administered in more sections in a school or many schools.

It is important to mention here that till now the details of the achievement test are given. Another form of test i.e. criterion-referenced test which serves the purpose of achievement testing and diagnostic testing equally. The details regarding its construction has been discussed in the chapter on Diagnostic testing and remediation along with diagnostic tests.



## **When to evaluate?**

There is no fixed answer to this question in formative evaluation process. However in summative evaluation it is organised at the end of the course/session. As evaluation is integral part of teaching learning, therefore teachers mostly evaluate students during imparting the instruction to ensure the effectiveness of learning experiences provided by them. Besides, before the starting of a new competency/concept teachers also make an attempt to ask few questions related to competencies those already taught by him to make a sound base for new competency. This act is also a sort of evaluation. Not only this at the end of teaching of a competency teachers evaluate their students to ensure the acquisition of competency at desired level. In nutshell, evaluation may be carried out at the following points of time in school based evaluation scheme:

1. Evaluation of entering behaviour: This type of evaluation is carried out before providing new learning experiences.
2. Evaluation during the teaching. This type of evaluation provides feed back to teacher regarding the effectiveness of teaching strategies adopted by the teachers during instruction as well as for knowing the progress of learning among the students.
3. Evaluation after an interval. This type of evaluation may be at the
  - end of teaching of a competency
  - end of teaching of cluster of competencies as unit test/criterion referenced tests.
  - end of a term as per school calendar as a term test.
  - end of a half session as half yearly.
  - end of full session as annual examination

So the frequency of evaluation out put to be reported to parents regarding the progress of the child may vary from school to school. It may be organised as per school calendar for reporting purposes. But for making evaluation as integral part of teaching-learning experiences it should be carried out simultaneously. The feed back obtained from such type of evaluation may also be used for modification in teaching strategies according to difficulties of the learners. It may also be used at elementary stage of diagnosis.

In general, schools and teachers have to decide as to when they have to evaluate their students?

## **Recording and Reporting**

Recording means keeping safe the evidences related to certain events or a person. For example all information about a child is kept at one place as a record. It covers backgrounds of a child, his/her performance related to different aspects of growth, participation certificates medals or awards

Here, we are only concerned with scholastic aspect of child growth. Therefore, systematic recording and maintenance of evidences related to scholastic area is being only discussed here.

We are already doing this activity to some extent. As collection of evidences of students performance in scholastic areas through various techniques and tools i.e. observations, written and oral is already done and recorded.

In many schools student's performance on each competency is evaluated, independently, in terms of Master's, partial masters (between masters and non masters) and non masters. But performance of students on each competency is not reported to parents competency wise. Such, type of testing is done to know the acquisition of competency and for moving to next competency. For the reporting purposes only test on a cluster of competencies in terms of unit tests/term tests are being reported to parents. But the recording of performance of all students in all tests must be recorded to know the continuous progress of the child. As far as report is concerned the performance of students on unit test/term test should be evaluated in numerical marks and obtained marks/scores in each subject should be converted into grades in a five point scale as suggested in the scheme. These grades are to be reported to parents on report cards. Therefore, there should be a clear cut provision for indicating grades in each unit/term test in each scholastic area.

### **Conclusion**

Evaluation is powerful tool and significant means for the quality improvement in education. It is essential to use evaluation in its best way. For this, teachers have to use various techniques and tools and different forms of questions depending upon the nature of the content to be taught and to be tested. The use of variety of evaluation procedures at different time will definitely provide desirable evidences which will help in promotion of learning. It will serve the purpose of evaluation and will also provide satisfaction of evaluation to teachers, parents and students. This can be achieved only by providing awareness among the teachers and building their capacity as a professional evaluator. The efforts have been made in this Chapter to empower the teacher to be more equipped and competent evaluator so as to strengthen the evaluation practices to be followed in school.

# DESIGN

## QUESTION PAPER/UNIT TEST

Subject	: Mathematics
Unit/Paper	: Triangles
Class	: V
Time	: 35 minutes
Marks	: 20

### Weightage to Objectives:

Objectives	K	U	A	S	Total
Percentage of marks	30	40	20	10	100
Marks	6	8	4	2	20

### Weightage to Form of Questions:

Forms of Questions	LA	SA	VSA	O	Total
Number of Questions	2	3	4	4	13
Marks allotted	6	6	4	4	20
Time	12	12	6	5	35

### Weightage to Contents/Competencies/Sub Competencies:

I.	Triangle: Introduction & Definition	30%
II.	Characteristics of Triangle/Elements of a Triangle	30%
III.	Properties of a triangle	0%
IV.	Classification of triangles according to sides & angles	0%
V.	Some problems based on triangles.	10%

---

Scheme Of Sections -A(LA), B(SA), C(VSA) D(O)

Scheme Of Options NIL

Difficulty level : Difficult: 25 % marks

Average: 50% marks

Easy : 25% marks

---

K (Knowledge), U (Understanding), A (Application), S (Skill), E (Essay Type),  
SA (Short Answer Type), VSA (Very Short Answer Type), O (Objective type).

## Chapter IV

### *Evaluation in Co-scholastic Area*

Education aims at all round development of the child. Infact, it is related to the three aspects of personality growth i.e. Head (intellectual), Heart (emotional) and Hand (Skill). All the three aspects in school education are covered under two broad areas: Scholastic and Co-scholastic. Scholastic as we have already discussed in previous chapter requires more involvement of head i.e. mental activities whereas, co- scholastic areas require more involvement of heart and hand i.e. activities related to interest, attitude, craft and hand work.

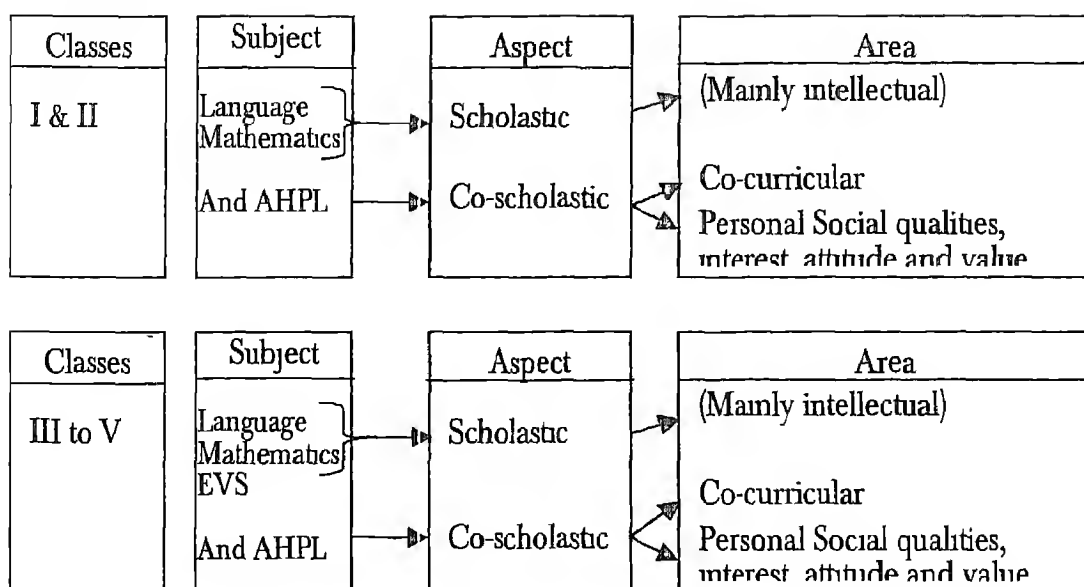
Since in schools as well as at homes, teachers and parents stress upon studying subjects such as Maths, Science and Languages, children find less time to play and for other social activities e.g. visiting friend's house, attending community gathering etc. . As a result they become weaker in physical and emotional area. We may find many children around us who are suffering with postural defects, pain in legs and hand and eye's trouble. Shyness, hesitation in talking to others, adjusting in group are other problems they face. One among many reasons for the above maybe lack of organization of proper activities for the development of physical and emotional aspects of a child in school. It has been observed that in many schools, there are provisions for art education, health and physical education and work education in the time schedule as well as in report cards. However, majority of teachers do not give proper importance to this area due to lack of understanding about them, awareness of specific activities and procedures of their development and evaluation.

Realizing the importance of co-scholastic area, various commissions and committees in India, time to time, stressed upon the responsibility of the schools to develop these alongwith growth in scholastic field. Even the recent document National Curriculum Framework for School Education (NCFSE,2000) clearly focussed the need for introducing an interdisciplinary area of learning. For this, the major concerns of health and physical education, art Education and work education are integrated as one subject namely Art of Healthy and Productive Living (AHPL). So, the trend has recently changed. Now the emphasis is being laid on developing emotional intelligence along with intellectual intelligence. In fact now the shift is on developing multiple intelligence.

#### **What to Develop**

Keeping in view the importance of co-scholastic aspect, the NCFSE (2000) recommended curricular areas such as Language, Mathematics, and AHPL for classes I and II; Language, Maths, Environmental Studies (EVS) and AHPL for classes III to V. This has been depicted in the following chart.

## Curricular areas



The new subject namely Art of Healthy and Productive Living implies the art of living. Living life is an art would also imply that education should be such that children learn to live a purposeful life through a variety of experiences by participating in activities, learning and internalizing the outcomes. The experiences will be strengthened by ensuring participation of all children in the activities related to music, dance, drama, games and sports, yoga and productive work. Activities may be taken by the individual schools according to the facilities available and local needs. Besides, efforts will be made to develop PSQs including attitudes and values

The major objective of AHPL is to develop a positive social attitude towards the dignity of labour through work education and to nurture values, aesthetic sense through art education and healthy living through health and physical education.

### Objectives:

1. Development proper and regular habits and attitudes to meet the natural needs of the body.
2. Know and understand the functions of the different parts/organs of the body and develop habits to keep them clean and healthy.
3. Develop awareness and sensitivity towards the immediate environment and understand the inter-dependence between humans and the environment.
4. Develop respect for manual work, dignity of labour and hard work.
5. Develop physical, mental and emotional well-being through yoga and games.
6. Nurture the inherent ability of self-expression and creativity through visual and performing arts and to enable children to appreciate and develop aesthetic sensitivity towards these arts

7. Develop positive human values like honesty, truthfulness, respect for elders, punctuality, regularity and appreciating the good qualities of others, cooperation, tolerance caring, caring and qualities of leadership
8. Appreciate the cultural heritage, both local and national.
9. Develop a feeling of oneness with the culture of the country
10. Take care of and protect public property.
11. Know about the existing public facilities in their surroundings and how to use them properly.
12. Develop feelings of patriotism, nationalism and pride in being an Indian.

### **Co-curricular Areas**

This area includes art education, work Education, health and physical education. Details of each are given below

#### **Art Education**

The art education helps in the development of balanced personality of a child by manifesting the various components of growth, such as emotional, intellectual, physical, social, creative and aesthetic. It provides an opportunity to express his/her emotions and feelings.

There are some objectives of art education at the primary stage. These are as follows:

- To develop observation, imagination and self-expression through the media – (visual art)
- To promote free expression, through simple forms of music, dance and drama.
- To discover and identify means for self-expression out of a variety of media and materials exposed to him.
- To create awareness of aesthetic elements in traditional arts and love for beauty in nature
- To inculcate a sense of patriotism and pride in being an Indian.

For each of the above objectives, set of essential learning outcomes has to be planned which directly correlate with the objectives. A child having achieved the set criteria will be assumed to have developed a desirable ability in art education.

Art education may be classified into two parts i.e. visual arts and performing arts.

**Visual Arts:** It includes drawing and painting, collage, printing, decoration, clay modeling, construction of mask and puppet etc.

**Performing Arts:** It includes vocal and instrumental music, dance, drama and display, exhibition and stage performance

#### **Work Education**

Work education refers to purposeful and meaningful manual activities, creative expression of the ideas and habit formation. Awareness towards dignity of labour,

personal cleanliness, cleanliness of surroundings and beautification of home, school and environment are other important aspects of work education

The objectives of work education are as follows-

- to exhibit good work habits, e.g. punctuality, regularity etc
- to observe different work situation in the community and develop dignity of labour.
- to prepare simple artistic and useful articles for beautifying home, classroom and school
- to participate and cooperate in local festivals, national days, sports day and special days organized by the school
- to recognize the need for keeping school, home and surroundings clean

In work education also a set of essential learning outcomes have to be determined to realize the above objectives. This will also guide a teacher in organizing various activities and evaluating the pupil performance

### **Physical and Health Education**

In the present time, the aspect of life that is most often neglected, knowingly or unknowingly is physical activity. Physical education teachers are conscious of this fact but they also fall into the trap of considering physical education in terms of sports and games.

Fortunately, there is a perceptible shift in public perception of physical education in the past few years and this area has been receiving more attention from academicians, administrators, and teachers in general.

The objectives of physical education at primary stage are as under-

- to develop correct static and dynamic posture
- to develop basic fundamental skills related to sports and games
- to develop physical fitness in learners
- to encourage learner's participation in physical education programmes
- to encourage mass participation and group activities.

### **Development of Competencies in Co-curricular areas**

The competencies in co-curricular areas may be developed by organizing different individual and group activities involving the children.

**It is pertinent to add that before evaluating the performance of children, it is essential to make efforts in developing the competencies in children.** For organizing activities in art education in various forms of art, the teacher should provide children the exposure to the environment, available resources, if possible self-constructed material to develop their liking and understanding of these arts.

The child in early primary stage is naturally very creative and prolific and he evolves his own techniques in keeping with his temperament and mode of expression. Therefore, sharpening of technique of skill of art is necessary. In view of this approach

- 7 Develop positive human values like honesty, truthfulness, respect for elders, punctuality, regularity and appreciating the good qualities of others, cooperation, tolerance caring, caring and qualities of leadership
- 8 Appreciate the cultural heritage, both local and national.
- 9 Develop a feeling of oneness with the culture of the country
10. Take care of and protect public property.
- 11 Know about the existing public facilities in their surroundings and how to use them properly
- 12 Develop feelings of patriotism, nationalism and pride in being an Indian.

### **Co-curricular Areas**

This area includes art education, work Education, health and physical education. Details of each are given below

#### **Art Education**

The art education helps in the development of balanced personality of a child by manifesting the various components of growth, such as emotional, intellectual, physical, social, creative and aesthetic. It provides an opportunity to express his/her emotions and feelings

There are some objectives of art education at the primary stage. These are as follows:

- To develop observation, imagination and self-expression through the media – (visual art)
- To promote free expression, through simple forms of music, dance and drama.
- To discover and identify means for self-expression out of a variety of media and materials exposed to him
- To create awareness of aesthetic elements in traditional arts and love for beauty in nature.
- To inculcate a sense of patriotism and pride in being an Indian.

For each of the above objectives, set of essential learning outcomes has to be planned which directly correlate with the objectives. A child having achieved the set criteria will be assumed to have developed a desirable ability in art education.

Art education may be classified into two parts i.e visual arts and performing arts.

**Visual Arts:** It includes drawing and painting, collage, printing, decoration, clay modeling, construction of mask and puppet etc

**Performing Arts:** It includes vocal and instrumental music, dance, drama and display, exhibition and stage performance

#### **Work Education**

Work education refers to purposeful and meaningful manual activities, creative expression of the ideas and habit formation. Awareness towards dignity of labour,



personal cleanliness, cleanliness of surroundings and beautification of home, school and environment are other important aspects of work education

The objectives of work education are as follows

- to exhibit good work habits, e.g. punctuality, regularity etc
- to observe different work situation in the community and develop dignity of labour.
- to prepare simple artistic and useful articles for beautifying home, classroom and school.
- to participate and cooperate in local festivals, national days, sports day and special days organized by the school
- to recognize the need for keeping school, home and surroundings clean

In work education also a set of essential learning outcomes have to be determined to realize the above objectives. This will also guide a teacher in organizing various activities and evaluating the pupil performance

### **Physical and Health Education**

In the present time, the aspect of life that is most often neglected, knowingly or unknowingly is physical activity. Physical education teachers are conscious of this fact but they also fall into the trap of considering physical education in terms of sports and games.

Fortunately, there is a perceptible shift in public perception of physical education in the past few years and this area has been receiving more attention from academicians, administrators, and teachers in general

The objectives of physical education at primary stage are as under

- to develop correct static and dynamic posture
- to develop basic fundamental skills related to sports and games
- to develop physical fitness in learners
- to encourage learner's participation in physical education programmes
- to encourage mass participation and group activities

### **Development of Competencies in Co-curricular areas**

The competencies in co-curricular areas may be developed by organizing different individual and group activities involving the children.

**It is pertinent to add that before evaluating the performance of children, it is essential to make efforts in developing the competencies in children.** For organizing activities in art education in various forms of art, the teacher should provide children the exposure to the environment, available resources, if possible self-constructed material to develop their liking and understanding of these arts

The child in early primary stage is naturally very creative and prolific and he evolves his own techniques in keeping with his temperament and mode of expression. Therefore, sharpening of technique of skill of art is necessary In view of this approach

methods of organizing art experiences in visual as well as performing arts are given below:

### **Visual Arts:**

#### **1. Free Expression Method**

This is a liberal method of organizing art activities, i.e. drawing, painting etc. It gives every child complete freedom to choose any idea or subject matter and express himself. Since every child has something personal to express through art, the expression of each individual child is different from the other.

#### **2. Specified Topic Method**

This is another effective method of organizing activities in art. In this, an appropriate topic or subject-matter is assigned to the whole class and freedom is given to every child to express art in his own way. The specified topics are always the ones with which the children are familiar. Any topic, about which children have no background, is always avoided. With this method activities can be organized at both levels i.e. individual as well as group.

#### **Few tips to children prior to participating in specific activities:**

A teacher may give his/her students few tips regarding material, lines, shapes and colours prior to organizing any specific activity. These tips may be helpful for the children to proceed systematically.

##### **1. Minimum material required – Pencil, eraser, brush, colour (wax or water)**

Teacher will explain children how to use this material.

##### **2. Lines and Shapes – Sometimes for free hand expression children need knowledge of different lines. These lines are thin line, thick line, dotted line etc. They should also be aware of how they can use these lines to draw different shapes e.g. triangle, circle, rectangle or square etc. knowing lines and shapes they may be able to draw both line drawing and action drawing.**

##### **3. Colours – Children may be given knowledge of primary colours i.e. blue, red and yellow and how they can make secondary colours by mixing the primary colours e.g.**

Red + Blue = Violet

Red + yellow = Orange

Blue + Yellow = Green

In this way children may be able to prepare many more colours. It may be noted that where the colours are not available local material may be used.

#### **b) Performing Art**

The methods required for conducting the activities of performing arts, music, dance and drama need to be flexible so as to encourage children to express their moods and emotions in a natural and creative manner. The method should provide joy to the children for participation and performance. **In the activities of performing arts, all children must be encouraged to participate.** A broad approach to organizing activities of the performing art is suggested below:

## Music:

In primary classes music may be introduced through nursery rhymes, action songs, patriotic songs and folksongs, etc. The children may also be encouraged to listen music in their local environment. In schools where stimulation devices such as compact disc-CD player, tape recorder, transistor, etc. are available, these should be played to the advantage of the children. Songs composed in the local dialect should be simple and easy to pick up. During the activities, the teacher may give guidance to the children. The song 'Sare Jahan Se Achcha' and other regional patriotic songs may be taught with proper intonation, rhythm, wording etc. In this connection a book as well as a cassette on community singing brought out by NCERT may be referred. This includes various songs in different regional languages. Morning assembly is the best platform for developing this.

## Dance

Music awakens the instincts for rhythmic movement. Whenever there is any dance performance, it may be accompanied by music. In schools, where musical instruments are not available, the teacher may use the counting of 1,2,3 at regular intervals (beats) to create a rhythm which is enough motivation for children to dance. Besides, the local resources like dholak, table pitcher etc. can be used to create rhythm. Children while listening to music should be encouraged to tapping and dancing in a natural way. The teacher should demonstrate the foot topping, movement on the waist, etc. to the children. They like to pick up dance forms which are popular in their community. This tendency may be nurtured by encouraging the children to perform these forms.

## Drama

The children of this age group are fond of imitating sounds of animals and characters of human beings which they see in their own environment. Activities of drama, mimicry, mono-acting, fancy dress, etc. should be encouraged at primary level.

### Exemplar Activity for class I in Art Education to develop skill in drawing

Topic	Draw a tree
Material	Pencil/Crayons/ink and kalam etc
Method.	Specified topic
Expected Expression:	Children are able to draw different objects seen in their environment in simple symbolic drawing
Teaching learning strategy	The teacher will assign the topic to the whole class. He/She will talk about the trees that children have seen in their local environment. He will point out various aspects like form, colour, trunk etc. He/she will then ask them to draw a tree of their choice. The teacher will go around the class and observe how each child is expressing his/her idea. If anyone finds difficulty in starting the work, the teacher may explain some details of a particular tree that the child intends to draw. Directly doing any child's work should be avoided by teacher. The symbolic drawing drawn by the children may not be recognizable but there would be remote resemblance with the tree. However, their work should be appreciated.

*(Source . Art Education, NCERT)*

## **Development of competencies in Work education**

There are plenty of activities under work experience for primary level e.g. organization of the exhibition, visits to different places, kitchen garden activities, preparation of material for celebration of functions, festivals and special days etc. But keeping in view the local available resources, time allocation for work education activities in school curriculum and maturity level of children, the following activities may be suggested with some exemplar sub-activities to be organized in primary classes

### **Exemplar sub-activities**

Use of waste material in preparing useful thing

### **Preparation of box**

**Material Required** Carton box, long thin sticks, thick thread for tying, blade, small pieces of cloth, paper, velvet paper, craft paper, thick threads of different colours, picture cutting of newspaper, magazines, other waste decorative material

### **Method:**

Paste a piece of black or blue cloth on all the faces of the box. Draw a picture/scenery on the cloth with the help of a chalk. Decorate this picture with coloured threads, long sticks, pieces of coloured papers etc. accordingly

### **Uses:**

- 1 This can be used as flower vase also if you put some flowers in the box.
- 2 This can be used in home for decoration.
3. It can be used as a dustbin for waste material

Activities like preparation of wax candles, greeting cards, dusters, chalk, calendars, wall hangings, news paper holders, rakhi, envelopes can also be organized .

### **Visit Programme**

The teacher may divide the number of students in 4 groups to assign the responsibilities for visit programme. She may assign one group the planning activities for the visit such as collecting of information about the place of visit location. Contacting concerned persons of the place of visit.

The second group may be assigned the responsibility to maintain discipline among students.

The third group may be assigned the responsibilities as keeping the things collected during visit in a proper way, classifying the things as per their nature and characteristics, displaying the things properly, making a list of objects collected and seen..

The fourth group may be assigned the responsibility of reporting.

Besides, teacher may encourage all the students to participate in the discussions about the experiences related to visit programme. He/she may also ask children to prepare some models of houses seen by them and make a chart out of picture cut-outs of houses with different structures. This activity is suggested for classes IV & V.

## Development of Competencies in Physical and Health Education

In primary schools, physical education should be the central theme round which other activities should be built up. Play must be set in the most informal atmosphere and should be attractive to children. The following activities may be suggested to be organized under Physical and Health Education in primary classes

### Activities for correct postures

For class III children, teacher should tell his/her students to sit and stand in correct postures. After instructing about correct postures teacher may encourage them to practice these postures. Let us see one example that how a teacher will instruct children about **Standing**. Standing can be of two postures one is attention and other is stand at ease. Following is the example of attention

#### STANDING:

**Teacher:** Children, we all stand but how many of us know the correct posture of standing? Today, we shall learn how to stand properly. Teacher demonstrates, shows different postures and asks the students to imitate.

**Teacher:** Are you ready?

**Students:** Yes

**Teacher:** Listen, while standing the body shall be in proper alignment. The head, neck, shoulder, trunk and hips are supported over the legs. If any part of the body is thrown out of line, another part of the body is thrown out of its proper alignment to counter balance the weight and pull on the muscles and joints. The feet form the base of support for the body. This base must be wide enough to accommodate the body weight.

Children if you want to stand in an erect position you have to keep head still, eyes looking forward, chest broadened, belly flattened, arms straight resting on outersides of the thighs and body weight on both the feet.

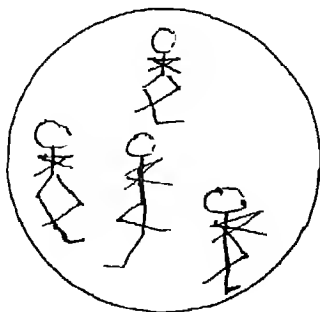
Now let us practice this. Every body will stand in erect position.

When all children are standing, teacher may go to each and every child and observe them. If any child is not doing as per instruction, the teacher may help him/her through demonstration.

In this way teacher may improve SITTING, WALKING, RUNNING, JOGGING, BENDING, POSTURES etc.

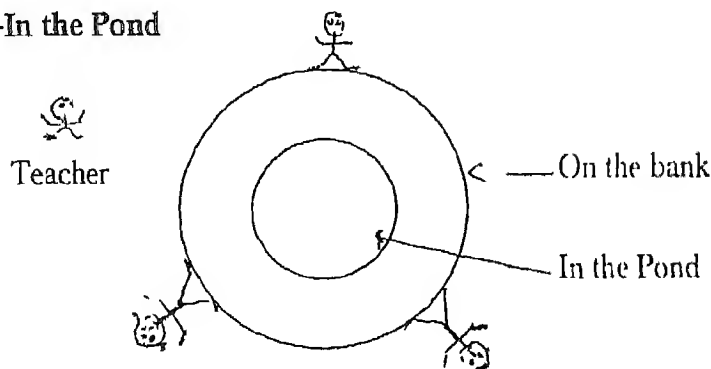
### Minor Games

#### King of the Ring



The players stand with arms folded, inside a circle marked on the ground. On the signal, they begin to hop on one foot. Each player will try to push the other player out of the circle or compel him to put both feet down. This circle should be neither too big nor too small. Whoever remains till last in the circle and on one foot will be declared the "King of the ring"

#### On the Bank-In the Pond



All the players stand on a circle with hands on hips, when the teacher says 'In the pond', all players jump into the circle (Pond).

When he says 'On the bank', all will jump on to the line of circle/outside the circle (bank). When teacher repeats the same in quick succession some children may commit mistake

'In the pond-on the bank-In the pond-on the bank'. In between teacher may repeat the same randomly 'In the pond-In the pond' on the bank. Then some players may jump out of bank. Whoever jumps out will be declared out of the game. Game continues till all become out except one. He will be declared as, 'King of the pond', In this 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> place winners also can be declared.

In order to ensure whether the children are able to develop the abilities in different areas discussed above the assessment of student's performance is necessary

#### Assessment of Performance in Co-curricular Areas

While assessing students performance in co-curricular areas teacher has to ensure the following

- All children must participate in one or the other co-curricular activities.
- Observation and recording of the performance of the students should be made during the activity
- Performance of the students should be rated during the participation/activity.
- In certain activities, parents may be involved in assessment of the performance of the students beyond school hours
- Health condition may be checked by a medical practitioner at least twice in an academic session.
- Students' performance should be reported term-wise on a three-point scale using direct grading method

- Extraordinary performance of the students in co-scholastic areas may be highlighted on the anecdotal record/report card.

## **Criteria for observation and Assessment**

### **Art Education and Work education**

Regarding the assessment of performance in the areas of art education and work education, the teacher is required to assess the performance of children from two view points. One is related to process of learning and progress of proficiency and the other is related to assessing the end product created through completion of the activity. Therefore, the criteria for evaluation will have to be determined at both the levels.

#### **a. Process evaluation**

It may include the following criteria.

- Conceptual understanding
- Active participation and regularity.

#### **b. Product evaluation**

This may include the following criteria.

- neatness
- accurate proportion

## **Explanation about different Criteria**

### **Process Evaluation-**

#### **Conceptual Understanding**

When a child starts drawing something or performing any art, he is guided by his previous experiences as well as information provided by the teacher and therefore his/her work/art may resemble, what he has experienced from the environment and how minutely he correlates the given instruction by the teacher. If resemblance occurs, this means child is aware of the environment, which surrounds him and possesses power of observation. He also tries to find out the proportion, colour scheme, similarities and differences among various objects and it is displayed in both the process and product of the activity.

#### **Active participation and regularity**

Under active participation, motivation of the child in doing a particular activity i.e. readiness, initiative and confidence is to be observed. It means child is not only following the instructions or doing by compulsion but undertaking the activity enthusiastically. Moreover regularity in activity denotes interest of the child in doing the activity. Besides, he is following the instructions given by the teacher regarding the required material and the step involved in completing the activity in stipulated time.

#### **Product Evaluation**

Drawing, painting and craft work do not stop at making things. These require more than that i.e. an assessment about how well the work has been performed. Under these a teacher has to see neatness and proportion in child's work.

- a) **Proportion**-At primary level proportion is generally observed in drawing, painting and work experience. In this the size is more important. The object which a child is drawing should not be too big or too small in comparison to the given object. However, it is also necessary to observe how accurately a child is drawing a figure making an object and performing an activity.
- b) **Neatness**-Neatness is also observed in drawing, painting and craft. In this, the product should not look dirty and untidy.

Although these criteria teacher should keep in mind he/she should be flexible and always encourage improvement because nothing is absolute and final.

## **Health and Physical Education**

The following may be considered as a criteria for assessment of student's performance in the area of health and physical education

- Awareness of activity
- Active participation and Interest development
- Regularity
- Skill development and quality performance

### **A. Awareness of Activity**

- Awareness of activity means knowing basic information, procedure, rules and regulations, some skills related to the activity in view and his sensitivity towards it.

At primary level a formal test about the awareness of physical activity may not be required. Few oral questions or by child's participation in activity e.g. Running, he/she may observe the child's actions and postures during running. If a child walks in spite of running then teacher may record this observation as a gap in following instruction and provide child remediation by repeating the instructions/demonstration. If a child exactly does what has been instructed then he is developing on this parameter.

### **B. Active Participation and Interest Development**

In any activity participation on the part of child is must. Teacher has to ensure and enhance this participation by observing child's readiness, confidence and happiness etc. Until a child participates and practices, he can not improve the skills in correct manner. If teacher observes that a child is not participating and practicing the activity with zeal, she/he has to encourage the child to take part in the activity through remedial process.

### **C. Skill Development and Quality Performance**

After understanding the activity, the pupil is expected to use the right kind of strategy, precautions and tactics while performing the activity. Due to self practice and repeated participation he is expected to show improvement both in quality. At primary level quality of performance shall be given priority i.e. how well he performs the activity? e.g. in throwing, if a child throws the ball with following proper rules, his ball will go far and the activity may be recorded as 'well performed'. However, if a child does not throw the ball with coordination it may be recorded as skill development is inadequate and child needs remediation.



#### **D. Development of Positive Habits**

Participation in health education programme will improve positive habits and personal social qualities. The habits and qualities have to be observed not only during play but even outside the physical education classes. For development of healthy habits the teacher will have to seek cooperation from parents and their assessment may also be taken into account. The necessary habits are taking bath, combing hair, cleaning teeth and cutting nails regularly.

#### **Recording and Reporting of Child's Performance in Co-curricular Area**

In order to make development and evaluation of co-curricular area more systematic steps need to be followed:

1. Organization of activities pertaining to different co-curricular areas
  - In this area, two types of activities may be organized. Individual and Group activities. In individual activities, the performance of a individual child will be assessed and in group activity, the performance of the group as a whole will be assessed. The same credit will be given to all the group members.
2. Observation and recording of performance of the children will be done during participation.
3. Extraordinary performance of the students will be recorded in anecdotal records.
4. Observations and recording in co-curricular areas will be done activity wise. Equal weightage should be given to both process and product.
5. The observations will be rated and graded on a three-point scale at the end of the term (monthly, quarterly or half-yearly).

Besides these classwise specific guidelines for co-curricular areas are also prepared. Which are given in chapter I under scheme. If required we may add more in this

#### **Procedure of Recording**

Prior to recording the information about child's performance teacher must keep in mind all the abilities/qualities for development and observable specific behaviour/behaviour indicators in the context of ability to be evaluated. During activity teacher must observe seriously, what is happening to the child. A teacher is required to observe continuously the performance of children till the activity is completed. For example if a teacher has asked the children 'to draw any animal' then he will start observing their performance and record it since beginning.

A teacher may record the observations in the following format:

## Art of Healthy and Productive Living

S No.	Name of the Students	Observations	Activity 1					Activity 1					Activity 2				
			Criteria				Grade	Criteria				Grade	Criteria				Grade
			1	2	3	4		1	2	3	4		1	2	3	4	
1	Mamta	1	✓	✓	✓	x	A										
		2	✓	✓	✓	✓	A										
2	Mahesh	1	✓	x	x	✓	B										
		2	✓	x	✓	x	B										
3	Suresh	1															
		2															

Activity 1\*- Drawing and Painting (Art Education)

Activity 2\*- pasting of paper pieces on card board (work education)

Activity 3\*-Jogging (Health and Physical Education)

For Activity 1 and 2 the criteria may be followed as.

- 1 Conceptual Understanding
- 2 Active participation and regularity
3. Proportion
4. Neatness

For Activity 3, the criteria may be followed as.

- 1 Awareness of activity.
2. Active Participation and Interest development
3. Skill development and quality performance
4. Development of positive habit.

The vertical columns show qualities/criteria/parameters the activity under AHPL. Under any activity of drawing and painting, music, and dramatics teacher may record child's performance with respect to different parameters. After two or three (as required) observations (rows in front of names), teacher may give the grade for one activity. Under each parameter teacher may put ✓ or X according to performance level of child shown by indicators related to that parameter. If teacher finds child indicating satisfactory performance leading towards improvement by group intervention and self-evaluation he/she may put ✓ and if child does not show satisfactory performance and needs teacher's intervention on that parameter, then teacher may put X under the parameter. However, number of observations may vary according to the activity.

Out of total number of criteria, if a child meets at least 70%, then he/she may be awarded 'A' grade for that particular activity. If a child does not meet 30% or less criteria

out of the total in a particular activity, he or she will be awarded 'C' grade. Remaining all will get 'B' grade

### **Overall rating and Grading in different Co-Scholastic Areas**

Overall grades in art education, work experience and health and physical education will be awarded by considering grades obtained in individual activity in these areas separately. A table showing criteria for grading in co-scholastic area is given in Chapter I

### **Reporting**

Student's performance in terms of grades will be reported to parents along with the grades in scholastic area in the same progress report card

### **Personal Social Qualities.**

National Policy on Education (NPE) 86 recommended that every school should make conscious efforts while organizing curricular and co-curricular activities, inside the school or outside the school to develop certain essential personal social qualities and values in all the children. School has to take lead to inculcate and develop these qualities through effective programmes and activities within the classrooms and outside the classrooms

Personal Social Qualities are certain behaviours expected from the human being for his/her personal and societal benefits. Personal qualities are firstly self-benefiting e.g. cleanliness, punctuality, regularity then as a whole these benefit the society also. Social qualities are firstly to benefit the society e.g. cooperation, responsibility, patriotism etc. but these also benefit the individual as well.

### **Development of Personal Social Qualities.**

The development of personal social qualities begins at the primary stage. Therefore the teacher will have to be more concerned about its direction and pace of the development.

For primary level, following personal social qualities have been identified as suggestive for the development and evaluation purposes. These are

- 1 Cleanliness
- 2 Obedience/Discipline
- 3 Cooperation
4. Regularity/Punctuality
- 5 Respect for elders
6. Protecting environment
- 7 Dignity of labour
8. Truthfulness
9. Patriotism
- 10 Responsibility

Further, Classes I and II only first seven qualities are to be developed and evaluated, whereas for levels classes III – V, all the ten personal-social qualities are to be developed and evaluated. The child inherits these qualities from the family and neighbourhood, teachers also play a leading role in helping the development of these qualities among children for their betterment.

In these areas activities can be organized according the needs of the students and resources available in our school. However, one exemplar activity is given below to give guidelines for organizing activities.

### **An Exemplar Activity – Cleanliness of the Classroom**

**Objectives:**

- 1 To make the children aware about keeping their classroom and its surroundings clean
- 2 To make them aware of unhygienic surroundings and its effects
  1. To make them learn the habit of working in groups.
  2. To enable children to use the things needed for cleaning and keeping them back in their proper place after use

**Materials** – Broom, Duster and Dustbin

**Method** – Discussion points can be as follows:

- Discuss the significance of cleaning the classroom.
- Without depending on others keeping the classroom clean
- Collecting and arranging material required for cleaning
- What activities are to be carried out on a daily basis
- Dividing and distributing work in groups.

After discussion, the children should be divided into small groups according to the total number. In one group, there can be 4-5 children. It is better to keep changing members of the groups so that all children get to work with each other and can do different tasks turn by turn. This will promote working together in harmony and help them to learn to do different activities. This will create a feeling of brotherhood and friendship among students. This will also develop among them a sense of dignity for working with hand and provide them number of such experiences

This can be organized in two ways.

- Each group will clean the classroom on a given day or
- Different activities such as sweeping, dusting the furniture, cleaning the black board, cleaning the dustbin, changing the calendar, date, etc can be distributed to different groups.

### **Evaluation of Personal Social Qualities**

For all the personal social qualities a teacher has to identify indicators for proper observation. Indicator means specific observable behaviour reflecting a particular quality. He/she will observe and record these qualities using behaviour indicators daily/twice/thrice/weekly/fortnightly as per the schedule of the individual school.

Teacher will rate students' behaviour on the basis of frequency of the occurrence of the behaviour indicators on periodic basis. Classwise specific indicators for each of the personal social quality are given below on the basis of which teacher can prepare required indicators accordingly which are already provided at the end of Chapter I

### Recording and Reporting

In case of some personal social qualities and other affective aspects, observations are made everyday e.g. cleanliness. In case of some other qualities which are not so frequently displayed e.g. honesty, truthfulness etc., the observation is made based on a situation.

Recording of observations is somewhat needs careful attention of us we have to ensure our own mechanism to reduce the complexities of recording. For example, putting a tick (✓) for every behaviour indicator observed and a cross (X) for every behaviour indicator absent for each and every personal social qualities and affective aspect being observed whenever these observations are being made for all students of the class is practically very difficult task. This becomes still more complex once these tallies are further analyzed for reporting purposes. It is therefore, suggested that the data of observation alongwith the qualities of student where the behaviour indicator is absent may be recorded. Later on these observations may be computed for grading purposes. If the child is absent on the day of observation, 'A' may be marked in front of him to record his absence.

A specimen of the record sheet for the assessment of personal-social qualities aimed at development of affective aspect have been given below.

### Specimen of Recording Sheet

Name of Student:

Table

Personal Social Quality and its indicators	date	date	date	date	total	grade	date	date	date	date	total	grade
<b>1. Cleanliness</b>												
a.	x		x									
b.		x			13/16							
c.												
d.												
<b>2. Obedience/Discipline</b>												
a.												
b.	x											
c.		x			13/16							
d.			x									

The grade secured by the child maybe computed by adding the percentage of presence of behaviour indicator during the observation period. However, the number of days the child is absent is also taken into account in the computation. The percentage is computed on the basis of total number of observations made for quality in respect of the

child. These grades need to be reported with scholastic area in the same report card periodically as per school's schedule of reporting this makes the evaluation procedure complete

## **Conclusion**

The purpose of teaching and evaluation of co-scholastic areas is to cover the aspect of comprehensiveness aspect of the evaluation. Without it all round development of the child is not possible. Although it is very difficult to create a water tight compartment between a scholastic and co-scholastic areas as one is complementary and the other is supplementary. The learning experiences and skills developed in one area always help in other area. But the ground reality in the school system is different. Teachers and parents are giving more importance to scholastic area than to co-scholastic development of a child. However due importance to co-scholastic area is a need of the hour. In order to make our schools emotionally literate importance to co-scholastic areas need to be given the added weightage. This can be practiced by way of organising variety of activities leading to develop emotional and social competence among children. Parents also need to be made aware of the importance of these areas so as to avoid conflicting situations. There is no denying the fact that due to erosion of values children are behaving in undesirable way and the parents and society are suffering. This can be curbed only by taking development of co-scholastic areas in children seriously. It will increase their understanding of living together in a society which need to have the component of peaceful co-existence. For this the qualities like respect for elders and increased level of tolerance maybe helpful and this will also enhance the quality of life. Probably this is the ultimate aim of education.

## Chapter-V

### *Diagnostic Tests and Remediation*

While teaching in the classroom, we mostly ask questions to students to find out whether they have understood the concept and its different aspects or not. Sometimes we ask students to come to the blackboard to write and describe the information. During this process we often observe the learning gaps e.g. identifying wrong pronunciation in language or incorrect spellings etc. This process of identifying the learning gaps which is a part of continuous evaluation is called diagnosis. But we do not know that we are diagnosing. Also, there is a limitation in this process because it is difficult to find out learning gaps of the majority of the students at the same time due to lack of time. In order to systematize the process, it is necessary to plan and execute diagnostic tests. It is well known that the learning occurs in sequence. Therefore, it is essential to find out at which step the student has gone wrong. Because gap or difficulty at any step will obstruct further learning, develop misconception and demotivate students to learn. The process of diagnosis and remediation has not been initiated in present practices to bring the learner to the desired level. Consequently the learning gaps continue along with further learning which results into poor performance. When any step of the learning sequence is weakened the whole structure of learning crumbles down. Therefore in order to strengthen prevalent practices it is essential to follow procedure of continuous evaluation and be vigilant about learning difficulties of the students constantly.

Difficulties in learning in learners may be due to various reasons such as

Unfavourable learning environment, emotional problems, lack of motivation, teaching not adjusted to maturity level, lack of mastery over related previous knowledge, lack of physical fitness, insufficient attention, inadequate practice, less learning efforts and irregular attendance etc.

Diagnosis of these difficulties may be done by using written, oral testing and observation. The analysis of these tests will indicate whether that content area is difficult for most of the students. If it is so then it is a hard spot which requires replanning and reteaching. If it is a problem of selected few, detailed diagnosis is required. For detailed diagnosis a comprehensive diagnostic test is to be made.

#### **Oral/Written Planned Technique (deliberated)**

In this, teacher plans in advance and writes down some questions while preparing his lesson plan to facilitate the development of learning. During the teaching learning process teacher asks such questions which identify learning difficulties of students. While evaluating the students through oral mode teacher prepares questions on a competency before hand and tests all the students through the structured questions. This type of testing is called planned technique and may be put under formal evaluation.

#### **Oral/Written(Spontaneous) Technique**

Under this, a teacher does not plan before hand but asks many questions spontaneously and casually during teaching learning process to ensure the attainment of learning as well as learning gaps. While using oral technique for evaluation of students achievement a teacher mostly starts with planned oral questions but when a student is

unable to respond many questions the teacher starts asking immediately different sorts of questions. This process may be termed as spontaneous oral testing. In this process different questions are asked to different students. Such type of testing may be categorised as unplanned oral technique and informal evaluation. Once the learning difficulties are identified spontaneously then planned diagnosis is required.

### **Observation**

Learning difficulties may be identified through observation. In the teaching learning process facial expressions, gestures of students may indicate their uneasiness of the understanding the aspects which are discussed in the classroom. The teacher gets the clue that he has to stop and probe for identifying the factors which are obstructing learning. For example in classroom evaluation if the student is looking here and there and avoiding to give response, i.e., he is not following the concept. Looking at the teacher may plan for diagnosis.

Apart from oral, written and observation techniques learner's difficulties may also be diagnosed by the following ways.

1. Pupils' written work (compositions, home assignments and test papers).
2. Pupils' work habits (participation in class activities, , peer relationship, independent work, interest, efforts etc.)
3. Physical and health records (school and family records about vision, hearing and dental problems).
4. Guidance and cumulative record data (family background, anecdotal references, school activities)
5. Interview with pupil (problem or trouble and elimination of misconceptions).
6. Parent/Teacher meet (pupil problems at home, parent interpretation).
7. Clinic or laboratory aids (vision tester, audio meter, eye photographs, tape recorder etc.)

### **Diagnostic Test**

Diagnostic tests are those tests in which questions are given on a pinpointed aspect of a competency with a view to identifying and confirming the learning gaps. In other words items are based on errors committed by students. It is more specific in nature and all questions given in a diagnostic tests are interlinked with each other covering different aspects of the competency.

The unit test/term test is generally prepared by the teacher to know the achievement level of the students and weakness in learning. Diagnostic tests are specific in nature based on a particular learning gap. It also indicates the steps involved in it and related reason. Therefore, it covers specific area of the subject matter. Whereas the achievement test covers a comparatively larger area of the subject matter.

### **How to develop a diagnostic test (Written/Oral)?**

In preparing the diagnostic test three steps may be followed:



1. Identification of learning gaps through different sources such as oral/written tests and observations.
2. Finding the causes of learning gaps through analysis of content.
3. Preparation of item (test attempts) on each possible type of error.

### **Identification of learning gaps**

While scoring the answer scripts of the students a teacher can easily notice a set of questions based on a particular competency incorrectly responded by a large number of students. This finding indicates learning gaps on that particular competency. The discussion with other teachers and observations of the students' performance also help in identifying the learning gaps.

### **Finding of causes of learning gaps.**

In the next step the teacher has to find out the causes responsible for the learning gaps in a competency. It is just like diagnosing the focussed cause of a disease by a doctor.

### **Preparation of Items**

Once the teacher identifies the steps where the students are committing mistakes, he/she is required to frame the items on that particular part of the competency. It is just to pin-point the sub steps of the main step where the students committed mistake. Hence, at least two-three questions are required to be framed on each sub step to confirm the cause of error.

Generally children face learning difficulties in Mathematics and Languages in the classes of the beginning of primary stage. Therefore let us find out what are the aspects of these subjects in which children commit mistakes.

### **Learning difficulties in Mathematics and Language**

At lower classes of primary stage students generally face difficulties in mastering the basic competencies in language and mathematics irrespective of medium of instructions, area and category to which they belong. However, the extent of difficulties may vary within and between the groups. Some of the common difficulties already identified in mathematics and language are presented as under

#### **Mathematics**

Students generally commit mistakes in reading and writing of numbers and doing sums of addition, subtraction, multiplication and division. These are fundamental competencies, without mastering them, a child cannot learn mathematics. Besides, word problem is another area where mostly students commit mistakes. These are called conceptual problems. In a word problem, the child has to understand the language as well as numerical aspect of the problem and relate to both. However following are the focussed areas where generally students of classes I and II commit mistakes.

- Recognition of numbers
- Writing of appropriate numeral for a number given in word
- Arranging the number in ascending or descending order

- Simple addition of two digits with carrying.
- Concept of zero
- Place value.
- Simple subtraction
- What comes before and after
- Word problems.

### Diagnosis and Remedial Activities for class II in Mathematics

The process of diagnosis and remedial activities described here is based on practical experience. In a classroom, it was found that students of class II are showing poor performance in Mathematical concept of addition of numbers. To diagnose their learning difficulties in the concept, diagnostic test was developed.

In the construction of this test, it was first ensured that the problem exists by analysing result. The problem pertained to mainly with addition that too with carrying problem. Therefore the sequence of the sub-concepts of the concept of addition with carrying was analysed along with problem situation. In view of the ground realities, addition with carrying problem row sum, column sums and day-to-day life situation problem sums were only included. Oral, figural sums of four concept areas i.e. sum of two numbers and three numbers where the total has 0 and non 0 at unit place. The diagnostic test developed was to ensure specifically about the process involved in doing the sums.

### Diagnostic Test in Mathematics for Class II

**Competency:** Addition with carrying of numbers when the sum does not exceed 99

**Instructions:** Some questions are given below. Read each question carefully, solve it in the given space and write your answer

- |    |   |     |   |     |  |     |   |
|----|---|-----|---|-----|--|-----|---|
| 1. | $\begin{array}{r} 16 \\ + 4 \\ \hline \text{Ans} \end{array}$       | 2.  | $\begin{array}{r} 23 \\ + 0 \\ \hline \text{Ans} \end{array}$       | 3.  | $\begin{array}{r} 43 \\ + 17 \\ \hline \text{Ans.} \end{array}$      | 4.  | $\begin{array}{r} 28 \\ + 27 \\ \hline \text{Ans} \end{array}$      |
| 5. | $\begin{array}{r} 6 \\ 21 \\ + 53 \\ \hline \text{Ans} \end{array}$ | 6.  | $\begin{array}{r} 66 \\ 18 \\ + 7 \\ \hline \text{Ans} \end{array}$ | 7.  | $\begin{array}{r} 32 \\ 16 \\ + 42 \\ \hline \text{Ans} \end{array}$ | 8.  | $\begin{array}{r} 29 \\ 37 \\ + 5 \\ \hline \text{Ans} \end{array}$ |
| 9. | $\begin{array}{l} 33+7= \\ \text{Ans} \end{array}$                  | 10. | $\begin{array}{l} 37+29= \\ \text{Ans} \end{array}$                 | 11. | $\begin{array}{l} 48+33+19= \\ \text{Ans} \end{array}$               | 12. | $\begin{array}{l} 33+36+24= \\ \text{Ans} \end{array}$              |

### Administration of the test

The diagnostic test was administered specifically to the learners who were facing difficulties.

### Analysis

The answers and response pattern were analysed thoroughly. It was observed that students were having learning difficulties in row sums, problem sums and in some cases column sums also. They have learning difficulties particularly when there were more than two addends in the question.

### Remedial Instruction

The following remedial activities were undertaken for overcoming the learning difficulties in the above diagnosed area

#### Carry over problems

The teacher asked students to write carry on the top of the column

Students who have problem in solving questions given in serial no. 3 4 and 10 were given this remedial activity to overcome their learning difficulty of this type.

Example: A

	I step	II Step
43	$\begin{array}{r} 1 \\ 43 \end{array}$	$\begin{array}{r} 1 \\ 43 \end{array}$
$\Rightarrow$	$\Rightarrow$	
$+17$	$+17$	$+17$
$\underline{\quad}$	$\underline{\quad}$	$\underline{\quad}$
	0	60
$\underline{\quad}$	$\underline{\quad}$	$\underline{\quad}$

Hence the answer is 60

#### Problem with two addends.

In such types of problems students were asked to add two addends first then add the third addend in the sum of two addends obtaining first step.

Students having problem in finding sum of three addends as given in question. No 5,6,7, 8 were given practice of this remedial activity to overcome their learning difficulty

### Example B

	I step		II step
66	1 66		1 84
18	+18		+7
+7			
—	—		—
	84		91
—	—		—

Hence the answer is 91

Students having problem in finding sum of numbers given in row as shown in question nos 9,10,11 and 12 were given practice of this remedial activity so as to overcome their learning difficulty of this type

$$33+36+24=?$$

I step		II step		III step
33		33		69
36		+36		+24
+ 24				
—		—		—
		69		93
—		—		—

$$\text{Hence, } 33 + 36 + 24 = 93$$

Most of the students of class II must be having problem with such type of sums because of the reading load and their maturity. Therefore, it is advised that teacher should use oral teaching device for teaching problems of this kind. Accordingly, evaluation of students in such questions may also be done orally. In the later part of class II or in class III the following remedial activity may be practised for overcoming learning difficulty.

### Example C

Question: There are 38 mango trees and 32 apple trees in a garden. How many total trees are there?

I step	
Mango trees	38
Apple trees	32
Trees in the garden	38+32

II step	III step	IV step
38	38	38
$\Rightarrow$	$\Rightarrow$	
+ 32	+32	+32
<hr/>	<hr/>	<hr/>
70	0	70
<hr/>	<hr/>	<hr/>

Ans. There are total 70 trees in the garden

### Addition of row sums

In such types of problems, ask students to convert row sums into column sums which is in practice in general

See Example A

### Learning difficulties in problem sums.

In such situations advise students to write the figures given in the problem sum in column sum addition and follow the suggestions suggested in above problem:

See Example B.

### Language

Reading abilities among children in the early years of schooling is considered to be critical for the development of language. The difficulties in language demotivate students and push them out from the school. Children at primary stage mostly face difficulties in language in following competencies:

- Identification of letters.
- Writing of letters with proper strokes
- Reading of letters with appropriate sound
- Reading of three letter, four letter words.
- Reading of simple sentences.
- Writing of small simple sentences.
- Reading comics, posters and magazines.
- Reading hand written sentences
- Describing unfamiliar things and objects

For making students capable to remove such type of difficulties, teacher has to take care of these during teaching and testing at the time of reading as well as checking of written work. These difficulties can be removed by using oral as well as written practice. Besides, loud reading of the letters, words and sentence also make the children able to

differentiate among the different letters and words. Similarly, common difficulties at different classes may be identified

### **Remedial Instruction in Language (Hindi) Classes-I & II**

#### **Learning difficulty-Poor writing of letters.**

To improve writing skills removing problems related to it, teacher has to give practice of straight lines, horizontal and vertical lines, inclined lines (top inclined, bottom inclined), semi circle and circles because Hindi-Devanagari script are based on such type of geometrical structures.

For improving word writing ability, it is advisable to give sample verbs between two parallel lines and ask them to copy the same between different sets of parallel lines. By this method strokes helping in writing letters/words will improve.

Besides the above methods teachers have to take care of the posture of the students, putting notebook on the desk, length and sharpness of the pencil and style of holding the pencil. If any one of the above requirements is not fulfilled, there will be a chance of creeping of deficiency in writing skill.

There is a specific example from the state which does not have Hindi as mother tongue. States in which Hindi is not mother tongue, this language is taught as second language. In such states students do a lot of mistake in drawing/making alphabets of Hindi (Devnagri) due to impact/influences of regional language scripts, because the movement of hand in Hindi is slightly different than regional language writing. The process of diagnosis and remedial instruction described here is based on practical experiences.

### **Diagnostic Test in Hindi for Class II**

#### **Competency: Good handwriting**

### **निदानात्मक परीक्षण एवं उपचारात्मक शिक्षण**

*(अहिन्दी भाषी राज्य के विद्यार्थियों के साथ एक अनुभव)*

कक्षा द्वितीय में आते-आते बच्चे भाषा को जानने लगते हैं। वे अपने भाव भी प्रकट करने लगते हैं। पाठ्य पुस्तक का पढ़ना, उसके अभ्यास करना और साथ-साथ अभ्यास-पुस्तिका के प्रयोग से उनकी भाषा सतत विकसित होती रहती है, किन्तु अधिकतर बच्चे लिखते तो हैं पर लिखावट की सुन्दरता, वर्णों की सही बनावट एवं आकृति पर बहुत कम ध्यान देते हैं। लिखावट की सुन्दरता के प्रति विमुख रहने की इस प्रवृत्ति का क्या कारण हो सकता है? भाषा शिक्षण का यह एक प्रमुख उद्देश्य है कि बच्चों में सुन्दर-लेखन के प्रति जागरूकता उत्पन्न की जाय। उदाहरण के लिए लिखावट के मूल्यांकन के आधार की सूची नीचे दी गई है।

1. क्या बालक लिखने के लिए प्रवृत्त है?
2. क्या बनावट की दृष्टि से अक्षर सुडौल हैं?
3. क्या लिखावट स्पष्ट है जिसे आसानी से पढ़ा जा सकता है?

4. क्या अक्षरों के झुकाव दाहिनी या बाई ओर है?
5. क्या पंक्तियाँ सीधी न होकर टेढ़ी हैं?
6. क्या शब्दों के ऊपर आड़ी रेखा खींची गई है?
7. क्या शब्दों के बीच आवश्यक दूरी रखी गई है?
8. क्या लिखावट के समय विराम चिन्हों के प्रयोग का ध्यान रखा है?
9. क्या मिलते-जुलते स्वरूप के अक्षर स्पष्ट हैं जैसे- म भ, ध घ, क फ आदि।

इन उपरोक्त आधारों को ध्यान में रख कर शिक्षिका सर्वप्रथम कुछ शब्द श्यामपट पर लिखे और बच्चों को उन्हें अपनी कक्षा-कार्य की पुस्तिकाओं में लिखने का आदेश दिया।

सड़क, गमला, नाव, बकरी, धनुष, टमाटर, तमाशा,  
नटखट, लता, ठठेरा, इमली, ईख, डलिया, चीटी,  
हाथी, खरगोश, कबूतर, चूहा, मधुमक्खियाँ, जगल,  
सूखा।

मूल्यांकन करने से ज्ञात हुआ कि कुछ बच्चों की लिखावट का स्तर बहुत निम्न था। उनमें लिपि सम्बन्धी त्रुटियाँ अधिक थीं। दस बच्चों में केवल दो की लिखावट सही थी जो निम्न तालिका में दिखाया गया है:-

बच्चों की कुल संख्या	उत्तम (अ) सटीक लिखावट	मध्यम(ब) औसत लिखावट	निम्न (स) अस्पष्ट लिखावट
(10)	(2)	(6)	(2)

इस तालिका के आधार पर यह स्पष्ट हुआ कि दस बच्चों में से आठ की लिखावट में सुधार की आवश्यकता है।

अब प्रश्न यह उठता है कि अधिकतर बच्चे देवनागरी लिपि त्रुटिपूर्ण क्यों लिखते थे। अध्ययन से ज्ञात हुआ कि लिपि के त्रुटिपूर्ण होने के कुछ कारण हो सकते हैं जो निम्नलिखित हैं:-

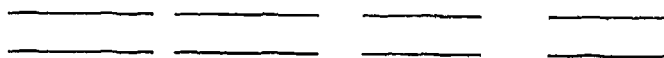
1. हिन्दी भाषा के सम्पर्क में आने के लिए वातावरण का अभाव - वे अधिक समय प्रादेशिक भाषा के सम्पर्क में ही रहते हैं इस कारण उनमें हिन्दी, जो अनजान भाषा है, से लगाव कम रहता था।
2. पाठशाला में आने से पूर्व ही कुछ माता-पिता, कुछ अक्षरों को त्रुटिपूर्ण तरीके से लिखना सिखा देते हैं।
3. ये बच्चे प्रारंभ से ही त्रुटिपूर्ण लिपि लिखते आ रहे हैं जिस पर पाठशाला में शिक्षक, घर पर अभिभावक दोनों ने उचित ध्यान नहीं दिया।

4. दक्षिण भारतीय भाषाओं की लिपि, ध्यान से देखा जाये तो ज्ञात होगा कि उसमें वक्र रेखाएँ, अर्धवृत्त और वृत्तों की अधिकता होती है। इस कारण भी देवनागरी लिपि लिखते समय उनके 'स्ट्रोक' पर प्रादेशिक भाषा का प्रभाव रहता है।

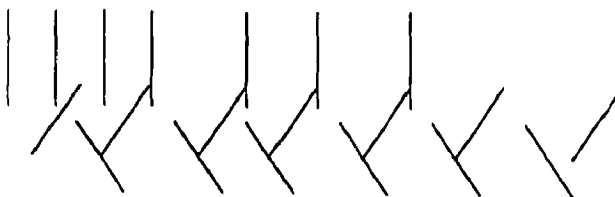
इस कमी की पहचान और कारणों के ज्ञात होने के बाद शिक्षिका उनके उपचार के उपाय सोचने लगी। सभावित कारणों के आधार पर ही उपचातमक सोच प्रारंभ हुई, इस पर आगे विचार किया गया है:-

- 1 बच्चों में भाषा के प्रति आकर्षण पैदा करने के लिए, हिन्दी भाषा की सरल बाल्य पुस्तकें उन्हें दी गईं जिनमें रंगीन चित्रों की सहायता से व्याख्या करने की बहुतायत थी। इसके अतिरिक्त बाल पत्रिकाएँ जैसे चपक, पराग, मिलिन्द आदि भी उन्हें पढ़ने को दी गईं। अमर चित्र कथा की सहायता से पौराणिक कहानियों का ज्ञान भी दिया गया। पंचतंत्र की कथाओं के सरल रूप उन्हें पढ़ने को दिए गए। इनकी छोटी-छोटी नीति कथाएँ उनमें भाषा के प्रति रुचि उत्पन्न करने में सहायक हुई।
2. देवनागरी लिपि के अनुसार अक्षरों की सुडौलता को ध्यान में रखकर, सर्व प्रथम उन रेखाओं का अभ्यास कराया गया जिसका लिपि में बार-बार प्रयोग होता है। उदाहरण स्वरूप निम्नलिखित रेखाओं पर ध्यान दे:-

सीधी रेखाएँ



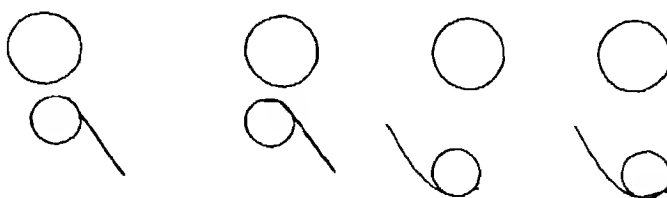
तिरछी रेखाएँ



अर्ध वृत्त



पूर्ण वृत्त



इन रेखाओं का अभ्यास कक्षा में सादे कागज पर रंगों द्वारा कराया गया।



साथ ही खेल के मैदान में बालू पर टहनी से लिखकर भी कराया गया। चित्रकला और खेल बच्चों को बहुत पसंद होता है। इस कारण बच्चों ने इसमें बहुत रुचि ली।

- 3 बनावट की दृष्टि से अक्षरों को सुझौल बनाने के लिए शिक्षिका ने वर्ण-माला क्रम पर अधिक बल न देकर रेखाओं के सहयोग से देवनागरी लिपि में अक्षरों की बनावट पर ध्यान दिलाया।  
उदाहरण स्वरूप:-

(अ) सीधी रेखाओं की सहायता से बनने वाले अक्षर,

ग म भ न

(आ) तिरछी रेखाओं की सहायता से बनने वाले अक्षर,

र ए स ख श

(इ) अर्ध वृत्त और पूर्ण वृत्त से बनने वाले अक्षर,

उ ऊ अ आ अः आ ओ औ

ड ङ ङ ई ई ह झ ञ

त ल च ज ण व ब

क फ प ष य थ

ट ठ ढ ढ द ध घ छ

उपरोक्त वर्णमाला अक्षरों के बनावट की समानता के आधार पर बनाई गई है। सतत अभ्यास के उपरान्त एक माह में जब वे लिखना सीख गए तब इसका प्रयोग नहीं किया गया।

4. शिक्षिका ने लिखावट की स्पष्टता हेतु श्यामपट का प्रयोग बार-बार किया और इस तरह उन्हें अक्षरों की बनावट, दो शब्दों के मध्य दूरी (space), विराम चिह्नों के प्रयोग का सतत अभ्यास कराया। एक उदाहरण देखें:-

ज ग ल में एक पेड़ था।

जगल में एक पेड़ था।

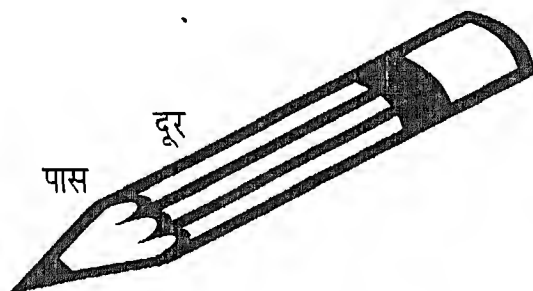
पक्तियाँ सीधी हों और अक्षरों में बाएँ, दाएँ या दोनों ओर झुकाव न हो इसके लिए बच्चों को पुस्तिका की दो रेखाओं को छूते हुए लिखने का निर्देश दिया गया। पहले दो पक्तियों के मध्य लिखे हुए अक्षर बड़े-बड़े लगे थे किन्तु धीरे-धीरे लिपि में सुधार आने पर इस विधि को छोड़ दिया गया। इसके लिये शिक्षिका ने श्यामपट पर दो रेखाएँ खींच कर उन्हें लिखावट सिखाई। उदाहरण स्वरूप:-

क ख ग घ ङ

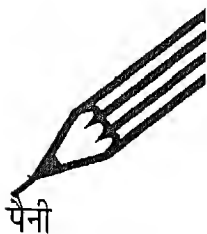
# नल घर कमल

इस तरह वे सीधी पक्ति में लिखना, अक्षरों पर आड़ी रेखा खींचना और अक्षरों के अनावश्यक झुकाव पर ध्यान देते थे।

6. लिखावट की सुन्दरता बनी रहे, इसके लिए शिक्षिका ने उनके बैठने के तरीके पर भी ध्यान दिया। उन्हें बताया गया कि उत्तर-पुस्तिका उनकी आँखों से लगभग एक फुट की दूरी पर होनी चाहिए।
7. साथ ही उन्हें बताया गया कि वे उत्तर-पुस्तिका लिखते समय पूरी तरह बेड़ी या खड़ी न रखें उसे 45° के कोण के आधार पर रखें।
8. शिक्षिका ने लिखने से पूर्व पेन्सिल पकड़ने के तरीके को बच्चों को बताया। उन्हें बताया गया कि पेन्सिल की नोख के पास नहीं पकड़ना चाहिए और न नोख से बहुत दूर।



9. ये ही नहीं लिखावट में प्रयोग में लाई जाने वाली पेन्सिल की नोख पर भी ध्यान दिलाया गया उन्हें बताया गया कि नोख न तो बहुत पैनी होनी चाहिए और न ही भोड़ी। बहुत पैनी नोख पुस्तिका को छेद देती है और भोड़ी नोख रहने से अक्षरों के घुमाव स्पष्ट नहीं होते।



10. प्रत्येक बच्चे का व्यक्तिगत रूप में निरीक्षण भी बहुत आवश्यक है लिखते समय और लिखने के बाद उनकी अशुद्धियों पर मौखिक रूप से ध्यान दिलाया गया तथा पुस्तिकाओं में लिखी अशुद्धियों को काटकर उनके ऊपर शुद्ध रूप लिखकर लिखावट का शोधन किया गया। उन्हें बार-बार अभ्यास कराया गया। लिखावट में सुधान आने पर उनकी कक्षा में प्रशंसा की गई। इससे बच्चे उत्साहित होकर और रुचि लेकर लिखने लगे।
11. कुछ बच्चे धैर्यवान नहीं होते वे किसी तरह काम करके समाप्त करना चाहते हैं उनकी इस जल्दबाजी का असर उनकी लिखावट पर पड़ता है। ऐसे बच्चों को धीरे-धीरे लिखने की सलाह दी गई परिणाम स्वरूप उनकी लिखावट में क्रमिक सुधार आया।

इस उपचारात्मक कार्यक्रम को लगभग एक माह संचालित करने के बाद फिर से सुलेख लिखने को दिया गया। परिणाम आशातीत निकला। आठ बच्चों में छः की लिखावट में बहुत सुधार हुआ।

बच्चों के सीखने के क्रम में मुख्यरूप से शिक्षिका का प्यार, सहानुभूति भरा स्पर्श, सहयोग और प्रयास ही उन्हें सफल बनाता है।

**कक्षा 2 के लिए एक और उदाहरण नीचे दिया गया है जो कि हिन्दी भाषी राज्य के विद्यार्थियों के साथ एक अनुभव है।**

हिन्दी भाषा के लिखने तथा उच्चारण में मात्राओं का अत्याधिक महत्व होता है यह माना जाता है कि यदि उच्चारण सही है तो शुद्ध लेखन भी संभव होता है। यदि इसका सुधार छोटी कक्षाओं में न किया जाए तो यह कमी बड़े होने पर भी बनी रह जाती है। शिक्षकों का भी ऐसा ही अनुभव पाया गया है। बच्चों में इ तथा ई की मात्रा की गलती बहुत पाई गई है। एक शिक्षक ने इसमें गलती होने का कारण जानने हेतु एक निदानात्मक टेस्ट तैयार किया जो कि नीचे दिया जा रहा है। इस टेस्ट से उसने जानना चाहा कि बच्चे अधिकतर किस मात्रा में गलती करते हैं। यह प्रयोग उस क्षेत्र में किया गया जहाँ बच्चों की मातृभाषा हिन्दी है।

## निदानात्मक प्रश्न-पत्र

### कक्षा-2

### विषय: हिन्दी

दक्षता: इ तथा ई की मात्रा का शुद्ध प्रयोग

निर्देश: निम्नलिखित शब्दों में शुद्ध शब्द पर सही (✓) का निशान लगाओ।

उदाहरण: हीत ----- हित ✓

- |     |          |   |          |
|-----|----------|---|----------|
| 1.  | जलेबी    | - | जलेबि    |
| 2.  | दिपक     | - | दीपक     |
| 3.  | इमली     | - | इमलि     |
| 4.  | फीर      | - | फिर      |
| 5.  | सिलाई    | - | सीलाई    |
| 6.  | हरीयाली  | - | हरियाली  |
| 7.  | सुरक्षीत | - | सुरक्षित |
| 8.  | पोलीयो   | - | पोलियो   |
| 9.  | धनीया    | - | धनिया    |
| 10. | चिकू     | - | चीकू     |

उपरोक्त निदानात्मक प्रश्न पत्र कक्षा के सभी छात्र एवं छात्राओं को बांटे गए। जाँचने के उपरान्त ज्ञात हुआ कि अधिकतर बच्चे छोटी (इ) की मात्रा में गलती अधिक कर रहे थे।

उपचार: उपचार हेतु शिक्षिका ने कक्षा में निम्नवत् विधियों को अपनाया

1. शिक्षिका ने कक्षा में इ तथा ई की मात्रा के कई शब्दों को ध्वनि के उतार एवं चढ़ाव के साथ उच्चारण किया तथा बच्चों को भी साथ-साथ उच्चारण करने को कहा। यह क्रिया दो तीन बार की गई। तदोपरान्त बच्चों से अलग-अलग उच्चारण करवाया गया।
2. उपरोक्त क्रिया के उपरान्त शिक्षिका ने बच्चों को इ तथा ई की मात्रा से संबंधित शब्दों का श्रुत लेख दिया।

श्रुत लेख को जाँचने पर ज्ञात हुआ कि बच्चों में इ तथा ई की मात्रा के प्रयोग में अत्याधिक सुधार हुआ।

3. उपरोक्त दोनों क्रियाओं के उपरान्त शिक्षिका ने बच्चों से कहा कम से कम 10 (दस) शब्द इ तथा ई मात्रा के अपनी कापी में लिखें। जिनको श्रुत लेख में नहीं दिया गया था।

शिक्षिका ने जाँच के उपरान्त पाया कि बच्चों का इ तथा ई मात्रा के लिखने में अत्याधिक सुधार हुआ।

For diagnosing learning difficulties in Environmental Studies (EVS), the criterion-Referenced Tests (CRTs) may be used as a diagnostic test

### **Criterion-Referenced Tests (CRTs)**

As already discussed earlier in criterion/referenced testing, the performance of the individual learner is not compared with performance of a group or against the set norms

In CRTs performance of student is decided in terms of intended learning outcomes. These intended learning outcomes (ILOs) are the expectations which are supposed to exhibit through the change in behaviour of a student after learning of a concept in a domain. These ILOs state what is understood by a student about the specific concept and upto what level of instructional/testing objectives have been realized in terms of behavioural modification. It is suggested that unit tests may be prepared now as CRTs

### **Characteristics of Criterion Referenced Test**

The following are important characteristics of CRTs

- based on pre-determined criteria
- help in describing the status of a learner with respect to explicit and defined instructional objectives
- results are interpreted to know how far a learner progresses towards mastery
- useful in formative evaluation
- more perspective in nature than evaluative
- help in diagnosis of hard spots in learning of a concept
- provided directions for planning remedial strategies
- help teacher to monitor progress of learning as an individual
- performance of an individual is not compared with a group or norm

### **Preparation of Criterion-Referenced Test**

The process of development of a criterion referenced test may be divided into following steps.

- I. Identification of unit in which CRTs are to be constructed.
- II. Division of unit into domain/sub units.
- III. Identification of concepts in domain/sub-units
- IV. Logical arrangement of concepts
- V. Identification of intended learning outcomes (ILOs).
- VI. Development of items on each ILO at least two parallel items should be developed on each ILO for making two parallel tests
- VII. Finalization of tests.

By following above steps, here one example of criterion-referenced test is provided for your ready reference. Similarly teachers can develop CRTs on each unit. Cluster of competencies may be used for unit/term test in different subjects

#### CLASS-IV

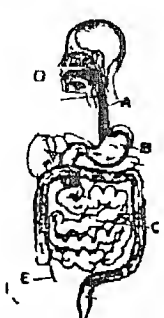
#### UNIT

#### LESSON: 2 OUR INTERNAL ORGANS

#### DOMAIN: BODY PARTS AND THEIR FUNCTIONS

C1	The internal organs of our body help us in performing various activities	1.1 match the organs with their function 1.2 give reason for the need of different organs
C2	Digestion of food takes place in different parts of food canal.	2.1 define the term digestion 2.2 recognise major body organs like gullet, stomach, intestine concerned with digestion from the given diagram
C3	Swallowed food goes through food pipe to stomach and then to intestine for further digestion.	3.1 recognise the body organs concerned with storage of undigested food 3.2 identify the role of intestinal walls in passing food into the blood 3.3 detect error in a given sequence of path of swallowed food
C-4	Heart circulates the blood to various body parts. It transports absorbed digested food	4.1 recall function of heart and blood 4.2 draw figures of heart.
C-5	Breathing is a process of inhaling.	5.1 recognize the use of hairs in the nose 5.2 relate inhaling the exhaling, with process of expansion and contraction of chest.
C-6	Exhaled air contains Carbon dioxide and water vapours.	6.1 suggest experiment to demonstrate presence of water vapour in exhaled air
C-7	Breathing rate becomes faster during running.	7.1 compare the increase in rate of heart/pulse beat during running 7.2 interpret the cause of higher heart beat rate during running.
C-8	Kidneys help in filtering waste products from blood	8.1 draw diagram of kidneys and urinary bladder 8.2 explain the function of kidneys

# TEST

1	Digestion is a process of
	<ol style="list-style-type: none"> <li>1 storage of food in stomach</li> <li>2 making food with the help of water.</li> <li>3. transportation of food to intestine</li> <li>4. break down of food into simpler forms</li> </ol>
2.	Which of the following organs marked in the figure is gullet?
	<ol style="list-style-type: none"> <li>1. A</li> <li>2. B</li> <li>3 C</li> <li>4 D</li> </ol> 
3.	Which of the following is the main function of large intestine?
	<ol style="list-style-type: none"> <li>1. To store undigested food for some time</li> <li>2. To store digested food.</li> <li>3. To help in absorption of food</li> <li>4. To send back undigested food to stomach</li> </ol>
4.	Digested food passes into blood mainly through the wall of
	<ol style="list-style-type: none"> <li>1 stomach</li> <li>2 gullet</li> <li>3. intestine</li> <li>4 mouth</li> </ol>
5.	Which of the following is a correct sequence for the path of swallowed food?
	<ol style="list-style-type: none"> <li>1 Mouth - Gullet - Stomach - Intestine</li> <li>2 Intestine - Stomach - Gullet - Mouth</li> <li>3 Gullet - Stomach - Mouth - Intestine</li> <li>4. Mouth - Intestine - Gullet - Stomach</li> </ol>

6	Which one carries digested food to various body parts?
	<ul style="list-style-type: none"> <li>1 Water</li> <li>2 Blood</li> <li>3 Digestive juices</li> <li>4. The breathed air</li> </ul>
7.	If hairs are NOT present in the nose it will
	<ul style="list-style-type: none"> <li>1. cause breathing difficulty</li> <li>2 help trapping of dust particles</li> <li>3 prevent trapping of dust particles</li> <li>4. improve respiration</li> </ul>
8.	Your chest expand when you
	<ul style="list-style-type: none"> <li>1 inhale</li> <li>2 exhale</li> <li>3 eat food</li> <li>4. hold your breath</li> </ul>
9	A cold mirror becomes cloudy if you exhale on it because of the
	<ul style="list-style-type: none"> <li>1 water vapour</li> <li>2 oxygen</li> <li>3. carbon dioxide</li> <li>4. all of the above</li> </ul>
10.	A normal healthy man has pulse rate of 72 beats/minute. After a 100 metre race, the pulse beat would become about
	<ul style="list-style-type: none"> <li>1 72 beats/minute</li> <li>2. 60 beats/minute</li> <li>3 100 beats/minute</li> <li>4. 50 beats/minute</li> </ul>
11.	What does the heart send to the body parts when it beats faster when running?
	<ul style="list-style-type: none"> <li>1 more carbon dioxide</li> <li>2. less oxygen</li> <li>3 more oxygen</li> <li>4. more water</li> </ul>



12	What would happen if	
	1 We do not have a	
	a) heart _____ _____	
	b) lungs _____ _____	
	c) kidneys _____ _____	
13	Match organs given in Column 'A' with things given in Column 'B'	
	Column A	Column B
	1. Stomach 2. Heart 3. Lungs 4. Kidneys	a) Smell b) Waste Products c) Blood d) Breathing e) Food
14	Fill in the blank with correct words given in bracket.	
	1. Human body has _____ heart.	(one/two)
	2. Human body has _____ lungs	(three/two)
	3. Human body has _____ kidneys	(two/three)
15.	Draw a diagram of human heart.	
16	Draw a diagram showing human kidneys and urinary bladder.	
17	What is the function of kidneys	

### Diagnosis of learning difficulties

After teaching a lesson the CRT was developed and administered in the class. The responses of the students were analysed concept/sub concept-wise. The analysis revealed that students were doing mistake on Q No 7, 8, 9, 10 and 11 related to Concept of Breathing

### Remediation

The concepts on which students are responding incorrectly, the teacher has to re-explain such concepts and also explain the related concepts. So that there should be no misunderstanding on various points of a concept. For example in the concept of breathing they could not understand breathing process and its effect on human body. This may be explained through demonstration by involving students in a better way. For this teacher may adopt the following procedure

#### Example

**Teacher:** Students, inhale air deeply

**Teacher:** Now, see the chest of each other

**Teachers:** What do you observe?

**Teacher:** Does chest go inside

**Students:** No, Mam

**Teacher:** Then, what happens?

**Student:** It, comes out side

**Teacher:** This is called expansion of the chest by inhaling the air

#### Example

**Question:** A normal healthy man has pulse rate of 72 beats/minute. After a 100 meter race, the pulse beat would become about\_\_\_\_\_.

**Remediation:** To explain such type of question teacher may ask few students to count the pulse rate of their friend and note down in the note book. After doing this he/she may ask the students to run and go up to few meters with speed. Now, students who counted the pulse of these students before running to recount the pulse beats

What do you observe about the number of pulse beats? Whether now, the number of pulse beat is same, less or more

**Students:** Mam now number of pulse beats are more.

**Teachers:** Why this has happened?

**Students:** Because, they ran fast.

**Teacher:** It means on running the pulse rate increases.

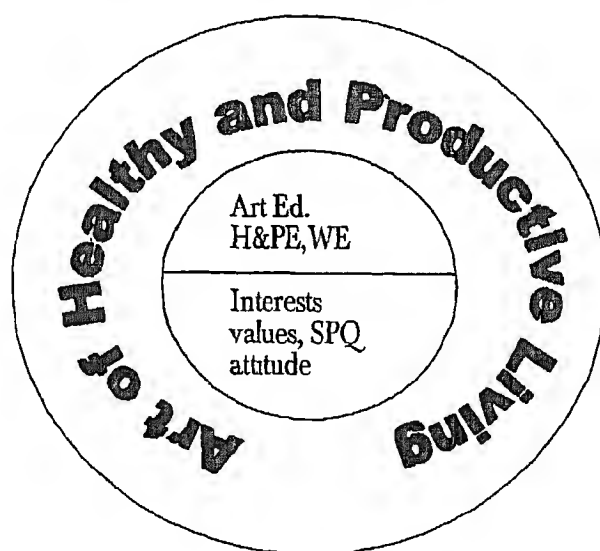
By using such demonstration methods teacher may remove learning difficulties and concept may be cleared to students

The teacher may give some more questions related to the same concept in order to ensure that students have understood the concept properly after giving remedial experiences

### **Learning difficulties and remediation in AHPL**

In this area, it is difficult to pin-point mistakes and errors particularly at primary level. The reason behind this is the characteristics which a child develops under this area are mostly affected by experiences which he/she gains from his/her family environment, school and neighbourhood. The development of competencies in this area depends partly upon what a teacher teaches in the class and mostly on what exposure he/she received from the environment. However, a teacher's role is to develop a strong linkage between child's own experiences with the curricular experiences which he/she is being provided. Here, it is also important for a teacher while evaluating the performance in this area that he/she should see a child's short comings/deficiency in the light of child's experiential background. After identifying/diagnosing a shortcoming, remediation can be planned.

It is better to estimate what kinds of common deficiencies children have in the area of Art of Healthy and Productive Living. This is one integrated subject having different components of co-scholastic areas which is shown in the follow diagram:



For the purposes of understanding of teachers the examples are given separately.

### **Co-curricular Area**

#### **Common mistakes in Art Education**

#### **Visual Arts (Drawing and Painting)**

- 1 Broken lines
- 2 Strokes go out of the outline
3. The colour, usually crayon, is not filled up properly
4. Lack of neatness

## **Performing Arts (Music, Dance and Drama)**

1. Shyness in reciting
2. Lack of proper co-ordination of rhythm and pitch with action.
3. Forgetting of the words, lines or steps.
4. Copying style of other children.
5. Disliking the part (role) they are assigned to perform.

### **Probable Reasons for these difficulties**

Children face these difficulties due to improper development of muscles and lack of co-ordination between hands, eyes and mind. Sometimes we may find lack of concentration and careless attitude among children. There may be other reasons also such as not following instruction, lack of material, less exposure to the environment etc.

### **Remediation**

After evaluating the points given above the teacher should act accordingly. He/she should handle the children having weaknesses very carefully. More patience is required for making them practice more. They should be given chance to make it/repeat the exercise in case of drawing and painting. He/she should also emphasise the child to concentrate on his/her work. In case of performing art a teacher should make the children perform/learn gradually. Taking part by all the children should be compulsory as to overcome the shyness. Specifically in case of Dramatics, the teacher should give sufficient time for practice and if possible make dialogue delivery with the pupil. She should create interest in the part given to the child. To overcome shyness, the child has to be convinced that she/he will not be ridiculed.

Some exemplar diagnostic tests and remedial activities are given below for ready reference. These examples are based on experiences of the teachers.

### **Exemplar Diagnostic and Remedial Activity in Art Education**

#### **A. Art Education**

##### **Visual Art**

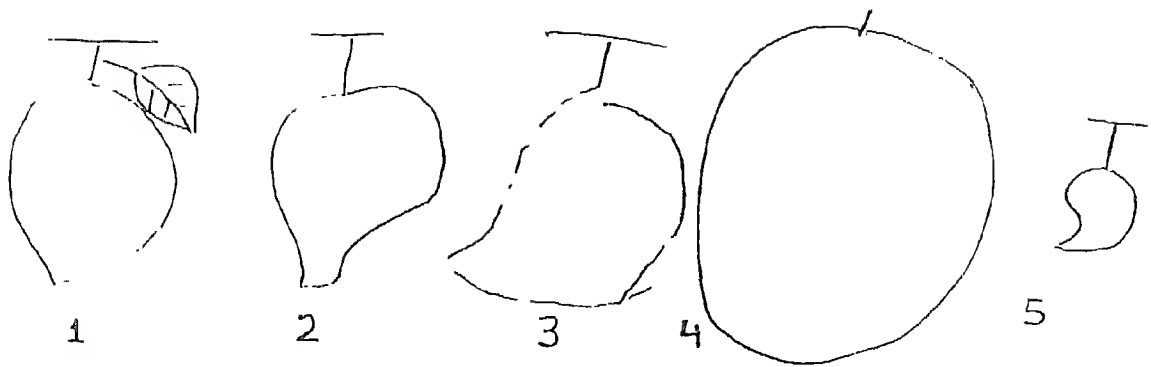
##### **Drawing and Painting**

Class I No. of Students 35

Activity: Drawing of Mango

**Method:** Teacher has shown a mango to the children then drew it on the blackboard. Later on she instructed the children to draw the mango.

**Teacher's Observation:** Teacher found 30 children out of 35 were drawing the shape in proper manner and with concentration. Only 5 out of 35 children were not making the sketch of mango as it was given. Their drawings were as follows.



### Drawing 1 and 2

In case of drawings 1 and 2 she observed and diagnosed that the children were trying hard to make the shape like mango but they were not able to succeed. They were rubbing again and again repeating the process

### Teacher's Intervention

She went to both the children with a fresh piece of paper and asked, "Have you seen S ?

Children, "Yes, mam".

She again asked, "If S will stretch itself, how it will look like?"

Children started thinking

Teacher, "Can you draw".

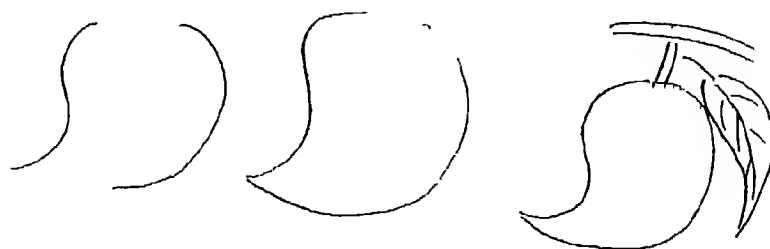
Child, "Yes, mam. It will look like  $\int$  "

Teacher, "Very good".

Addressing to another child, "Do you also agree".

Child, "Yes, mam"

Teacher, "Now, let us draw a stretched S and then join its two ends with a semi-circle then draw a leaf with it".



Children immediately started drawing and felt happy.

**Drawing 3.**

Teacher went to the child and Asked, “don’t you like mango?”

Child, “No”

Teacher, “What do you like”.

Child, “Grapes”

Teacher, “can you draw grapes?”

Child, “No”.

Teacher, “Why?”

Child, “My pencil is not sharp”.

Teacher, ‘oh, give me, I will sharpen it.”

(She sharpened the pencil and returned it to the child).

Teacher, “what will you draw?”

Child, “Mango”

Teacher, “Good”.

Child started drawing and this time he was drawing properly.

**Drawing no. 4 and 5.**

Teacher went to the children

Teacher (addressing child No 4), “Have you ever seen a big mango like yours which can not be accommodated in the block.”

Child, “No, mam”

Teacher, “why did you draw it”.

Child, “it automatically took this shape”.

Teacher, “you carefully observe your drawing and see you have left the space only in two corners. You should leave space in all the four corners then you will find your mango right in size”

(Child nodded the head and understood what teacher told).

Then, teacher addressed to another child and asked, “Do you think you have drawn your mango properly.”

Child, “Yes mam”.

Teacher, “Is the mango which is shown to you, too small?”

Child, “No”

Teacher, “Can’t you draw mango of that size”.

Child, “It is too big, my paper is small”

Teacher, "But, in comparison to paper, your mango is small? Isn't it?"

Child, "Yes"

Teacher, "try to draw mango taking more space from all the corners of the paper "

Child, "O.K mam"

Child started drawing again and giving proper shape

**Note 1:** If any student may also say that he has drawn a small unripe mango then it should be treated as correct keeping in view the experience and creativity of the child.

**Note 2-**you may think the activity is time consuming but actually teacher has spent only 1-2 minutes with each child and the whole intervention completed during the period allotted for the activity.

### **Performing Art**

#### **Music**

Class-II No. of students- 34

Activity-Song-"Dedi Hame Azadi Bina Khadag Bina Dhal"

Method-Teacher demonstrates and children follow

**Teacher's observation during the activity** -she found two children were not singing properly. She observed them for few more minutes and diagnosed the problem that one was not understanding what the song was and another was shy to sing.

**Teacher's intervention**-she called both of them out and told the group These children will sing with me first then with you all She sings and both follow the teacher then the group. In this way these two children started singing and taking interest in the activity

**Note:** there may be more ways to provide remediation for similar kind of activity.

### **Common mistakes in Work Education**

- Disproportionate cuttings of paper
- Careless pasting of paper pieces
- Loose fixing of items

### **Probable Reasons for these difficulties**

The reasons are almost similar as given in the case of art Education.

### **Remediation**

In the case of work experience, the children have to handle different materials for which their muscles require strength Hence a teacher has to be careful about how the child is handling the things and provide guidance and help as much as possible. Only instruction will not work in this case. Most of the time teacher has to demonstrate the child how he/she may do his/her work correctly

## **Exemplar diagnostic and Remedial Activity in Work Education**

Class-I

No of students-35

Activity- Pasting of shapes like square and triangle on the drawing sheet

Method- Cuttings of shape pieces are provided to children by the teacher. They have to paste these on the drawing sheet. Teacher has demonstrated the activity before hand

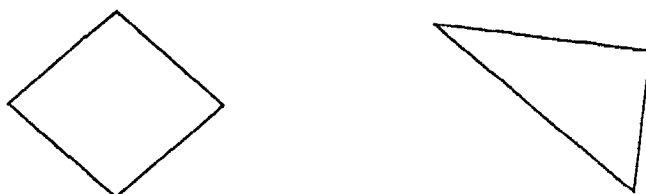
### **Teacher's observation during the activity**

Out of 35 children, teacher found 32 children were doing the activity carefully. They put the gum on the back of cut piece and fixed it on the drawing sheet. Only 3 children were not doing the activity in proper manner. First child was trying hard to fix the paper piece but his piece was running/moving/shifting from one place to other. Second child has not fixed the shape in proper place. The third was sitting and not doing anything.

### **Teacher's Intervention**

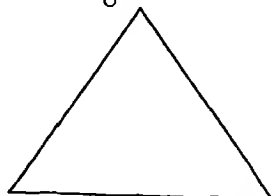
For the first child teacher has diagnosed the problem as the child has put lot of gum on the paper piece hence the drawing sheet as well as paper piece both were troubling the child. Teacher went to the child and told him to wait for few minutes until the gum dries. Then again he can try to paste. She also made child learn how to put gum on the corner of piece to fix it.

For the second child the teacher diagnosed that child was not having clear concept as to how to paste the paper at proper space. He has fixed the shape given as under:



Teacher went to the child with extra pieces of paper and asked, "How you will you draw a triangle"

The child draws a triangle as follow



Teacher, "Very good But the triangle you have pasted is standing"

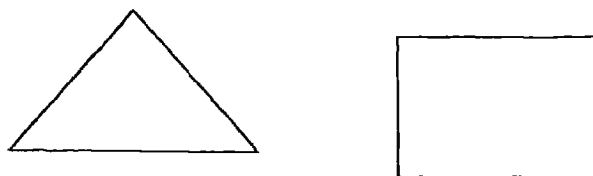
Child, "Oh"

Teacher, "It must be like the one you have drawn Can you try again".



Child, "Yes".

Teacher provided him extra piece and instructed the child for moving the shape until it resembles the triangle he drew. The child did like the activity and successfully pasted the triangle shape. He again repeated the same activity to paste the square shape.



For the third child, teacher went to him and asked, "don't you like the activity"

Child, "I like it. "

Teacher, "why are you not doing"?

Child, "I don't want to spoil my hands with gum"

Teacher, "You can wash afterwards"

Child, "it does not easily leave the fingers".

Teacher, "still, we all do. Sometime it is urgently required. You have to fix the stamp, labels and covers. How can you always depend on others? We have to do things on our own and learn to do them properly. However you can avoid sticking of gum on your fingers if you carefully put gum on a white piece of paper with the small stick. Back of pencil can also be used to put gum on your coloured paper piece for pasting it"

Child, "Yes mam".

The activity was completed by the child successfully

### **Common Mistakes in Health and Physical Education**

- Showing resistance in performing activity
- Not standing properly while exercising .
- Leaving body loose all the time.
- Disturbing other children in the event of loosing the game.
- Playing game in-correctly

### **Probable Reasons for these difficulties**

Due to improper development of muscles and lack of coordination among different organs particularly hands, legs and mind, children are not able to perform efficiently. Moreover, sometimes children do not possess conceptual clarity about the activity. Many a times teachers do not explain rules and regulation properly and demonstrate the activity improperly. As far as the children are concerned some are highly impulsive and do not possess team spirit. All these reasons lead them towards difficulties.

## **Remediation**

In this case the role of teacher is crucial, he/she must have knowledge of child's growth and development. He/she should demonstrate the activity properly and also explain rules and regulations about the activity. Activities related to this area need more practice and teachers have to take care of it.

### **Exemplar Diagnostic and Remedial Activity in Health and Physical Education**

Class-I, No. of students-35

Activity-Jogging

**Method-**The teacher instructed the children that they will follow the teacher in queue while jogging.

**Teacher's observation-**After completing one round of jogging track teacher stopped and told the child next to him to lead. Children were jogging. Teacher found two children very slow in jogging and two were walking instead of jogging.

#### **Teacher's Intervention**

He has called first two children and asked, "Are you not feeling well?"

Children, "We are alright"

Teacher, "But you are slow"

Children, "sir, our shoes are creating problem".

Teacher observed that the children were right and their shoes were not properly tied. He instructed the children for tying their shoes properly then and there and asked them to go for activity. This time they were doing the activity properly.

To the next two children who were just walking, Teacher demonstrated the way of jogging and asked them to observe and imitate.

**Note-**Besides, there may be some other related problems a teacher may handle according to the nature of problem.

#### **Personal-Social Quality**

There are several personal social qualities which need to be developed in children. School may decide which qualities are to be evaluated by teachers. Some examples are given below:

- Coming late
- No regularity in work.
- Does not greet teachers/other elders

#### **Class I & II**

##### **Activity-Respect for Elders.**

Behaviour indicators

1. Stands up when teacher enters the class

- 2 Talks softly to elders
- 3 Uses respectful words in addressing elders
- 4 Greets teacher wherever they meet.

Class I No of students 35

The teacher observed behaviour of all children against the behaviour indicators. The teacher identified one child in the class who out of four indicators does not show the last indicator that is 'greet teachers wherever they meet'. This behaviour of the child was also ascertained by the teacher through other teachers and parents

**Reasons for not greeting elders** The teacher talked to child to find out the reasons. The reasons were that he was shy in nature, he was not properly told how to greet and he was scared of teachers and elders

**Remediation:** For improving this child teacher planned two activities. In the first activity he/she told other teachers to greet the child whenever they meet him. She herself started doing this. All the teachers started politely greeting the child saying 'good morning' or 'Namaste'. The child started to respond slowly

The second activity was a game. Teacher conducted this game in the class. She divided the whole class in 8 groups of 4 children each. She instructed each group to perform as a family consisting of father, mother and two children. Now each group will go to other group as guests and the other group will treat this group like their parents treat guests

The activity took place so nicely. The particular child Ramesh when goes to other group, does not greet. Looking at this the child who was acting as a father specially instructs him, "Ramesh it is bad, greet uncle and aunt." Immediately Ramesh realises the mistake and greets. When another group comes to this group, Ramesh is the first who greets

**Note:** It is pertinent to mention here that activities were not time consuming. All the children enjoyed. This also helped in developing other PSQ, such as cooperation, socialisation etc.

With the help of these activities teacher could succeed partially in inculcating habit of greeting in Ramesh. After one month Ramesh himself started greeting teachers and elders not only in school but outside the school also

## Conclusion

The children in the age group of 6-9 years face different psychological as well as physiological problems in performing creative activities. Usually they study in the primary classes during this age and they are bound by the syllabus prescribed to them for curricular as well as co-curricular activities. The co-curricular activities consists of creativity in the areas comprising of art education, health and physical and work education. Since this is the stage of fast growth they need careful handling and guidance for co-ordinating different activities without hurting/discouraging their mental state. There is a general feeling that the co-scholastic aspect do not require any specific effort for its development as it might be developed automatically. Therefore, a school of thought having a strong opinion i.e. values are not taught but caught. But it is not always true. The

teacher plays a very crucial role for developing and shaping this aspect in primary stage. She is expected to develop the competencies among children related to this area taking care of difficulties faced by them and providing immediate remediation to overcome the difficulties.

Division of Library, Documentation & Information  
NATIONAL INSTITUTE OF EDUCATION  
(N. C. E. R. T)  
Sri Aurobindo Marg, New Delhi-110 016

*WAT*  
*3/11/28/WAT* **LIBRARY** *F. 23956*  
DATE DUE

This book is due on the date last stamped.